

ANNUAL REPORT
OF THE
DEPARTMENT OF THE INTERIOR
FOR THE

Fiscal Year ending March 31, 1911

PRINTED BY ORDER OF PARLIAMENT



OTTAWA
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EXCELLENT MAJESTY
1911

To His Royal Highness, Field Marshal, Prince Arthur William Patrick Albert, Duke of Connaught and Strathearn, K.G., K.T., &c., &c., Governor General and Commander-in-Chief of the Dominion of Canada.

MAY IT PLEASE YOUR ROYAL HIGHNESS:

The undersigned has the honour to lay before Your Royal Highness the report of the transactions of the Department of the Interior for the fiscal year ending March 31, 1911.

Respectfully submitted,

R. ROGERS,
Minister of the Interior.

OTTAWA, October 11, 1911.

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REPORT

OF THE

DEPUTY MINISTER OF THE INTERIOR

1910-11

DEPARTMENT OF THE INTERIOR,
OTTAWA, August 31, 1911.

To the Honourable FRANK OLIVER,
Minister of the Interior.

SIR,—I have the honour to submit the thirty-eighth annual report of the Department of the Interior for the twelve months ending March 31, 1911. I am glad to be in a position to state that the work of the department has been highly satisfactory. As a matter of fact, the general results obtained, both as regards the net cash revenue on account of Dominion lands and the number of new arrivals, have been largely in excess of the previous year, which itself had been the record year since the inception of the department in 1873.

Particular attention is called to the financial statements submitted, from which it will be seen that the total cash revenue from all sources amounted to the unprecedented figure of \$5,093,140.45, which is an increase of \$384,126.03 over the revenue for the previous twelve months. This total revenue is four times as large as the revenue for the year 1901-2, and ten times greater than it was twenty years ago in 1891-92. It is interesting to note also that the gross revenue of the department during the past ten years has been \$28,071,944.76, as compared with a revenue of \$8,109,706.51 for the previous decade. The same corresponding increase must be noted in connection with the number of free homesteads and pre-emptions that have been taken up during the past year as well as the number of arrivals. There were 44,479 free homestead entries during the year, representing a total acreage of 7,116,640, which is an increase of nearly 3,000 entries over the previous year, which had been the largest in the history of the department. These homestead entries, according to the best available information obtained from our agents, represent a total population of 107,884 settlers and their families, who located upon western farms during the period in question. This feature in connection with the work of the department, when viewed from an immigration standpoint, must be considered very satisfactory because it goes to show that over one-third of our total immigration last year can be accounted for as having engaged in agricultural pursuits in the western provinces.

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The general tone of the reports received from all our outside agents is most optimistic, and there would appear to be a spirit of contentment existing amongst the old as well as the new settlers, which is in itself the best possible evidence that the efforts put forth by the department to bring out a suitable class of settlers and to make known the great resources and possibilities of the western provinces have proved highly successful.

DEATHS.

I regret to have to report that there were eleven deaths in the department during the past year, six at headquarters, and five in the outside service. The following is a list of the persons who have died:—

Head Office:—

- Miss S. Rolph, Deputy Minister's office, died March 10, 1910.
 Miss E. J. Pallister, Mines Branch, died January 28, 1911.
 Miss N. O'Reilly, Immigration Branch, died February 18, 1911.
 H. N. Topley, Topographical Surveys Branch, died May 2, 1910.
 Duncan Bethune, Immigration Branch, died September 27, 1910.
 F. C. MacDonald, Land Patents Branch, died January 25, 1910.

Outside Service:—

- M. Curtin, D.L.O., Saskatoon, died May 16, 1910.
 Philip Wagner, D.L.O., Edmonton, died August 12, 1910.
 Frank E. Goodwin, D.L.O., Saskatoon, died February 28, 1911.
 G. C. Rainboth, Boundary Surveys, New Brunswick, died Nov. 2, 1910.
 H. W. Selby, Survey of settlers' claims at Athabaska Landing and McMurray, drowned, August, 1910.

STATEMENT showing Gross Cash Revenue received from all sources during the Fiscal Year ended March 31, 1911, compared with the receipts for the previous Fiscal Year.

Source of Revenue.	Fiscal Year. 1910-11.	Fiscal Year. 1909-10.	Increase.	Decrease.	Net Increase.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Dominion Lands.....	3,302,279 57	3,007,390 82	294,888 75		
School Lands.....	1,614,733 93	1,292,259 95	322,473 98		
Ordnance Lands.....	6,009 34	189,902 48		183,893 14	
Seed Grain.....	153,351 14	175,152 72		21,801 58	
Casual Revenue.....	11,336 06	42,625 96		31,289 90	
Registration Fees, Yukon.....	1,378 19	1,471 49		93 30	
Fines and forfeitures, N.W.T.....	184 80	211 00		26 20	
Fines under Immigration Act.....	3,867 42		3,867 42		
Total.....	5,093,140 45	4,709,014 42	621,230 15	237,104 12	384,126 03

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STATEMENT of Receipts on account of Dominion Lands Revenue for the Fiscal Year ended March 31, 1911, as compared with the receipts for the previous year (net cash revenue).

Particulars.	1910-11.		1909-10.		Increase.		Decrease.		Net Increase.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Homestead fees	445,135	00	415,232	00	29,903	00				
Pre-emption fees	156,485	00	174,250	00			17,765	00		
Purchased homestead fees	18,830	50	12,530	00	6,300	50				
Improvements	143,227	13	105,009	07	38,218	06				
Pre-emption sales under Act of 1908 ..	266,878	98	153,861	88	113,017	10				
Purchased homestead sales	376,309	15	242,134	97	134,174	18				
General sales	550,567	91	843,040	48			292,472	57		
Map sales, office fees, &c	8,730	01	9,135	49			405	48		
Rentals of lauds	10,216	99	11,190	62			973	63		
Survey fees	15,507	56	81,551	38			66,043	82		
Timber dues	387,054	96	378,010	70	9,044	26				
Grazing lands	60,702	80	67,434	29			6,731	49		
Coal lands	490,538	27	255,523	81	235,014	46				
Hay permits	7,808	43	5,434	65	2,378	78				
Mining fees	72,412	98	95,871	54			23,458	56		
Hydraulic leases	6,127	00	4,634	35	1,492	65				
Dredging leases	4,007	18	4,758	83			751	65		
Export tax on gold	103,168	19	89,843	85	13,324	34				
Free certificates for export of gold ..	152	50	173	00			20	50		
Stone quarries	5,037	60	2,537	22	2,500	38				
Irrigation fees	806	25	868	25			62	00		
Rent of water power	2,443	60	508	70	1,934	99				
Fees re Board of Examiners—D.L.S ..	1,310	00	1,577	10			267	10		
Patent and interchange fees	1,312	35	1,498	30			185	95		
Suspense account	4,876	17	3,943	49	932	68				
Interim receipt accounts—Yukon ..	270	50			270	50				
Sand, stone and gravel	11,956	50			11,956	50				
Petroleum	70,110	68			70,110	68				
Rocky Mountains Park	65,513	58	43,264	36	22,249	22				
Jasper Park	2,601	19	329	25	2,271	94				
Yoho Park	743	10	104	00	639	10				
Waterton Lakes Park	106	72			106	72				
Buffalo Park	80	00			80	00				
Elk Island Park	10	00			10	00				
Miscellaneous	11,240	70	1,650	29	9,590	41				
Refunds of refunds			1,483	95			1,483	95		
	3,302,279	57	3,007,390	82	705,510	45	410,621	70	294,888	75
Refunds	193,544	07	121,391	15	72,152	92				
	3,108,735	50	2,885,999	67	633,357	53	410,621	70	222,735	83

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1908-1909.....	389,039 00	141,550 15	70,928 86	951,442 28	20,136 27	7,296 55	1,040 00	75,896 46	9,946 50	269,837 52
1909-1910.....	415,232 00	174,250 00	195,009 07	1,290,037 33	9,373 84	9,135 49	1,377 10	100,257 89	14,028 30	378,010 70
1910-1911.....	445,135 00	156,485 00	143,227 13	1,156,756 04	1,437 84	8,730 01	1,310 00	42,111 92	29,142 85	387,054 96
Totals.....	4,140,678 77	679,026 16	599,152 32	9,222,894 31	3,810,534 04	101,131 41	13,880 10	1,520,340 20	267,529 69	5,584,675 53

STATEMENT showing Receipts on Account of Dominion Lands from July 1, 1872, to March 31, 1911.—*Concluded.*

Fiscal Year.	GRAZING LANDS.		HAY, COAL, MINING, STONE QUARRIES, EXPORT TAX ON GOLD, &c.		Canadian National Parks.	COLONIZATION LANDS.		Gross Revenue.	Refunds.	Net Revenue.		
	Cash.		Scrip. &c.			Cash.					Scrip.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
1872-73.	2,245 00			40 00				26,239 45			\$	cts.
1873-74.	22,844 43		913 91					29,980 80				
1874-75.	11,370 60		640 90					27,641 15				
1875-76.	17,089 70		815 63					8,865 94				
1876-77.	29,562 51		1,284 83					140,755 02				
1877-78.	14,242 77		1,570 40					139,584 40				
1878-79.	5,922 47		3,946 55					234,732 93				
1879-80.	2,202 43		9,212 08					206,801 37	4,636 08			
1880-81.	1,905 57		16,193 71					206,960 54	5,638 22			
1881-82.	3,079 55		3,616 85		40 00		354,036 17	1,805,734 87	10,087 55			
1882-83.	3,726 80		5,229 54		913 91		248,492 01	1,051,403 60	8,746 05			
1883-84.	6,840 80		5,813 51		640 90		253,713 40	1,001,776 67	9,220 50			
1884-85.	5,353 72		1,284 83				1,214 22	451,564 65	12,070 85			
1885-86.	4,715 01		1,984 83					457,973 95	63,949 12			
1886-87.	4,728 58		1,570 40		80 00			588,532 80	19,513 16			
1887-88.	5,245 85		2,273 73		80 00			569,986 68	6,277 66			
1888-89.	2,907 69		3,946 55					594,084 01	5,226 25			
1889-90.	1,905 57		9,212 08					462,036 26	8,209 74			
1890-91.	3,079 55		16,193 71		160 00		5 28	460,990 76	7,195 37			
1891-92.	3,726 80		3,616 85					452,151 08	15,291 37			
1892-93.	6,840 80		5,229 54					382,324 43	18,314 97			
1893-94.	5,353 72		5,813 51					250,069 12	4,544 01			
1894-95.	4,715 01		8,518 18					292,983 10	4,365 99			
1895-96.	4,728 58		694,334 76					297,694 93	8,368 79			
1896-97.	5,245 85		1,130,371 60					206,853 57	15,010 54			
1897-98.	2,907 69		3,946 55					1,009,741 63	4,678 55			
1898-99.	1,905 57		9,212 08					1,584,928 92	32,296 89			
1900-1901.	3,079 55		3,616 85		20 00			1,503,713 00	23,062 83			
1901-1902.	3,726 80		5,229 54		20 00			1,874,159 69	18,368 83			
1902-1903.	6,840 80		5,813 51					1,432,679 25	27,165 35			
1903-1904.	5,353 72		5,229 54					1,890,886 83	21,519 84			
1904-1905.	4,715 01		8,518 18					1,681,824 70	36,721 75			
1905-1906.	4,728 58		694,334 76					1,389,882 85	25,786 90			
1906-1907 (nine months).	5,245 85		1,130,371 60					1,769,513 28	33,418 36			
1907-1908*	2,907 69		3,946 55					1,490,503 81	35,117 48			
	1,905 57		9,212 08					2,094,579 17	115,080 04			

* Including Scrip.

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1908-1909.....	53,312 79	3,257 84	252,979 17	31,321 20	2,277,678 09	102,463 78	2,175,214 31
1909-1910.....	67,434 20	5,081 47	400,134 20	43,264 36	.....	.....	3,022,446 13	121,431 15	2,901,014 98
1910-1911.....	60,762 80	2,356 00	774,569 27	69,054 59	.....	.....	3,306,973 41	198,689 47	3,107,383 94
Total.	563,041 76	239,875 32	8,507,590 01	276,938 27	360 00	30,460 50	36,415,566 67	1,021,336 51	35,393,690 16

STATEMENT showing Yearly the Gross Revenue (in cash only) received from all Sources from July 1, 1891, to March 31, 1911.

Fiscal Year.	Dominion Lands.	School Lands.	Seed Grain.	Ordnance Lands.	Fines and Forfeitures.	Registration Fees.	Casual Revenue.	Total.
	\$	cts.	\$	cts.	\$	cts.	\$	cts.
1891-1892.	337,106 07	136,131 80	5,957 67	42,360 80	788 92	9,302 11	532 14	532,179 49
1892-1893.	303,550 86	82,615 22	5,806 21	33,776 90	777 00	10,750 38	1,331 96	438,668 53
1893-1894.	214,240 30	47,974 11	2,339 16	22,318 20	864 15	10,358 02	1,942 04	299,975 98
1894-1895.	171,085 48	47,665 10	2,752 56	22,645 97	693 85	9,811 77	1,875 36	255,530 09
1895-1896.	174,509 88	56,384 32	8,748 05	17,530 28	502 00	8,737 87	1,920 66	268,352 56
1896-1897.	187,424 19	24,292 43	9,887 13	9,831 27	1,316 00	8,997 24	2,683 65	244,431 31
1897-1898.	190,913 10	52,410 82	12,351 71	22,537 17	529 06	14,263 50	260 92	1,082,666 28
1898-1899.	1,963,020 74	41,249 77	12,388 69	12,349 65	2,807 03	19,220 73	2,620 91	1,653,651 52
1899-1900.	1,410,883 48	220,874 78	15,271 84	11,943 53	1,432 92	21,751 90	3,664 00	1,684,942 45
1900-1901.	1,553,197 07	48,049 83	15,711 63	14,094 47	1,977 96	33,979 77	1,587 57	1,649,168 30
	6,875,630 67	757,448 18	91,274 63	299,018 24	11,702 89	147,173 29	17,458 61	8,109,796 51
1901-1902.	1,254,333 56	193,410 75	20,293 06	16,907 36	1,955 61	50,854 99	3,900 62	1,541,715 95
1902-1903.	1,716,507 20	392,206 93	28,789 97	17,612 59	5,220 88	81,404 18	2,230 26	2,244,062 21
1903-1904.	1,478,106 33	333,769 62	26,122 30	30,494 34	5,911 92	109,233 73	3,492 94	1,887,041 18
1904-1905.	1,314,185 40	332,914 48	16,471 34	10,346 90	10,018 49	123,082 86	4,268 14	1,811,577 61
1905-1906.	1,701,380 51	608,960 79	12,577 29	10,893 17	3,304 77	180,310 73	8,496 09	2,326,123 55
1906-1907 (9 months).	1,478,740 51	724,353 73	16,850 06	6,638 90	21 00	46,124 20	11,785 81	2,278,548 21
1907-1908.	1,998,219 92	708,045 83	12,899 84	8,674 85	1,650 00	2,256 65	20,069 03	2,751,816 22
1908-1909.	2,254,283 98	687,422 74	53,590 86	205,749 96	281 00	1,392 13	26,224 29	3,228,904 96
1909-1910.	3,001,380 82	1,292,259 95	175,152 72	189,962 48	211 00	1,471 49	42,625 96	4,709,014 42
1910-1911.	3,392,279 57	1,617,733 93	153,351 14	6,069 34	4,052 22	1,378 19	11,336 06	5,093,140 45
	19,506,027 00	6,788,078 75	510,098 58	503,315 19	32,626 89	597,469 15	134,329 20	28,071,944 76
Increases.	12,630,396 33	6,030,620 57	418,823 95	294,296 95	20,924 00	450,295 86	116,870 59	19,962,238 25

SESSIONAL PAPER No. 25

STATEMENT of Rocky Mountain Park Revenue for Fiscal Year ended March 31, 1911,
as compared with revenue for previous year.

Particulars.	FISCAL YEAR.		Increase.	Decrease.	Net Increase.
	1910-11.	1909-10.			
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Rent	8,918 12	8,013 02	905 10		
Timber dues.....	1,102 90	1,406 45		303 55	
Water rates (sulphur).....	1,779 51				
Cold water rates.....	4,667 69	6,512 57	1,115 45		
Sewer rates.....	1,210 82				
Transfer fees.....	96 00	74 00	22 00		
Cave and basin (bathing tickets).....	3,567 50	3,098 25	469 25		
Quarry permits.....	488 44	288 91	199 53		
Dog licenses.....		332 00		332 00	
Livery licenses.....	683 00	616 92	66 08		
Pool, billiard and bowling licenses.....	190 00	232 74		42 74	
Boat licenses.....	137 50	93 00	44 50		
Butcher licenses.....	80 00	60 00	20 00		
Coal lands.....	34,559 07	16,226 37	18,332 70		
Grazing lands.....	592 85	534 32	54 53		
Hot springs (bathing tickets).....	4,148 75	3,630 50	518 25		
Telephone rent.....	1,232 29	874 81	357 48		
Fines.....	566 05	105 00	461 05		
Pedlars' licenses.....	92 00	54 00	38 00		
Camping permits.....	18 00	7 00	11 00		
Guides' licenses.....	75 00	35 00	40 00		
Restaurant licenses.....	30 00	30 00			
Mining fees.....		15 25		15 25	
Cemetery lots.....	40 00		40 00		
Tea room licenses.....	50 00		50 00		
Sales of town lots.....	64 00		64 00		
Hay dues.....	62 50		62 50		
Miscellaneous.....	1,061 59	1,020 25	41 34		
	65,513 58	43,264 36	22,942 76	693 54	22,249 22

The following is a comparative statement of the homestead entries and sales made during the fiscal years ending March 31, 1910, and March 31, 1911, respectively:—

	FISCAL YEAR ENDING MARCH 31, 1910.		FISCAL YEAR ENDING MARCH 31, 1911.	
	Number of Entries.	Acres.	Number of Entries.	Acres.
Homesteads	41,568	6,650,880	44,479	7,116,640
Sales.....		49,364		*443,673

* The acreage sold in 1911, 443,673 acres, includes 380,573 acres sold by Order in Council of October 6, 1908, to the Southern Alberta Land Company under the Irrigation system.

2 GEORGE V., A. 1912

The following statement shows the number of homestead entries reported in each year since 1874:—

Departmental year ended		Number of entries.
October	31, 1874.	1,376
"	31, 1875.	499
"	31, 1876.	347
"	31, 1877.	845
"	31, 1878.	1,788
"	31, 1879.	4,068
"	31, 1880.	2,074
"	31, 1881.	2,753
"	31, 1882.	7,483
"	31, 1883.	6,063
"	31, 1884.	3,753
"	31, 1885.	1,858
"	31, 1886.	2,657
"	31, 1887.	2,036
"	31, 1888.	2,655
"	31, 1889.	4,416
"	31, 1890.	2,955
"	31, 1891.	3,523
"	31, 1892.	4,840
"	31, 1893.	4,067
"	31, 1894.	3,209
Dec.	31, 1895.	2,394
"	31, 1896.	1,857
"	31, 1897.	2,384
"	31, 1898.	4,848
"	31, 1899.	6,689
June	30, 1900.	7,426
"	30, 1901.	8,167
"	30, 1902.	14,673
"	30, 1903.	31,383
"	30, 1904.	26,073
"	30, 1905.	30,819
"	30, 1906.	41,869
Nine months ended March 31, 1907.		21,647
Year ended March 31, 1908.		30,424
"	" 1909.	39,081
"	" 1910.	41,563
"	" 1911.	44,479

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COMPARATIVE statement showing the number of Homestead Entries made during the fiscal years ended March 31, 1910 and 1911, and the Nationality of the Homesteaders, as reported by the several agencies of the department in Manitoba, Saskatchewan, Alberta and British Columbia.

Nationalities.	No. of Entries. 1910.	No. of Entries. 1911.
Canadians from Ontario.. . . .	3,953	4,438
“ “ Quebec.. . . .	964	1,101
“ “ Nova Scotia.. . . .	188	237
“ “ New Brunswick.. . . .	130	140
“ “ Prince Edward Island.. . . .	93	68
“ “ Manitoba.. . . .	1,434	1,495
“ “ Saskatchewan.. . . .	3,307	4,061
“ “ Alberta.. . . .	1,219	980
“ “ British Columbia.. . . .	182	136
Persons who had previous entry.. . . .	2,274	1,834
Newfoundlanders.. . . .	10	7
Canadians returned from the United States . .	753	553
Americans.. . . .	12,813	12,485
English.. . . .	5,459	6,161
Scotch.. . . .	1,326	1,291
Irish.. . . .	546	492
French.. . . .	360	376
Belgians.. . . .	160	133
Swiss.. . . .	60	74
Italians.. . . .	21	68
Roumanians.. . . .	71	175
Syrians.. . . .	42	64
Germans.. . . .	688	845
Austro-Hungarians.. . . .	2,361	2,804
Hollanders.. . . .	102	201
Danes (other than Icelanders).. . . .	147	206
Icelanders.. . . .	130	96
Swedes.. . . .	818	937
Norwegians.. . . .	843	1,092
Russians (other than Mennonites and Douk- hobors).. . . .	1,061	1,858
Mennonites.. . . .	6	6
Doukhobors.. . . .	3	..
Chinese.. . . .	8	5
Japanese.. . . .	2	3
Persians.. . . .	2	9
Australians.. . . .	3	10
New Zealanders.. . . .	5	6
Greeks.. . . .	3	13
Hindoos.. . . .	14	4

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Bulgarians.. . . .	5	..
Servians.. . . .	1	3
Spaniards.. . . .	1	2
Turks.. . . .	1	7
Algerians..	1
Chilians..	1
Mexicans..	1
<hr/>		<hr/>
Total.. . . .	41,568	44,479

Representing 101,286 souls in 1910.

Representing 107,884 souls in 1911.

COMPARATIVE statement showing the number of Homestead Entries made during the fiscal years ended March 31, 1910 and 1911, by persons coming from the various States and Territories of the American Union.

States.	No. of Entries. 1910.	No. of Entries. 1911.
Arizona.. . . .	6	6
Alabama.. . . .	6	11
Alaska.. . . .	9	1
Arkansas.. . . .	9	21
California.. . . .	99	83
Carolina, North.. . . .	16	29
Carolina, South.. . . .	2	12
Colorado.. . . .	26	16
Columbia, District of.. . . .	..	..
Connecticut.. . . .	7	25
Dakota, North.. . . .	4,736	4,339
Dakota, South.. . . .	936	782
Delaware.. . . .	..	1
Florida.. . . .	4	1
Georgia.. . . .	3	6
Idaho.. . . .	277	228
Illinois.. . . .	387	409
Indiana.. . . .	207	219
Indian Territory.. . . .	..	..
Iowa.. . . .	545	598
Kansas.. . . .	181	200
Kentucky.. . . .	44	50
Louisiana.. . . .	4	4
Maine.. . . .	36	51
Maryland.. . . .	2	5
Massachusetts.. . . .	103	93

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States.	No. of Entries.	No. of Entries.
	1910.	1911.
Michigan.. . . .	670	650
Minnesota.. . . .	2,347	2,231
Mississippi.. . . .	..	10
Missouri.. . . .	156	147
Montana.. . . .	266	246
Nebraska.. . . .	167	200
Nevada.. . . .	10	3
New Hampshire.. . . .	20	29
New Jersey.. . . .	10	16
New Mexico.. . . .	8	1
New York.. . . .	196	505
Ohio.. . . .	167	183
Oklahoma.. . . .	110	99
Oregon.. . . .	210	157
Pennsylvania.. . . .	96	126
Rhode Island.. . . .	6	19
Tennessee.. . . .	27	34
Texas.. . . .	35	32
Utah.. . . .	32	19
Vermont.. . . .	10	24
Virginia.. . . .	6	14
Virginia, West.. . . .	22	12
Washington.. . . .	670	683
Wisconsin.. . . .	642	678
Wyoming.. . . .	38	30
Total.. . . .	13,566	13,038

STATEMENT showing the number of Letters Patent issued by the Department of the Interior in each year since 1874.

Period.	Number issued.
Year ended October 31, 1874.. . . .	536
“ “ 1875.. . . .	492
“ “ 1876.. . . .	375
“ “ 1877.. . . .	2,156
“ “ 1878.. . . .	2,597
“ “ 1879.. . . .	2,194
“ “ 1880.. . . .	1,704
“ “ 1881.. . . .	1,768
“ “ 1882.. . . .	2,766
“ “ 1883.. . . .	3,591
“ “ 1884.. . . .	3,837
“ “ 1885.. . . .	3,257
“ “ 1886.. . . .	4,570

Period.		Number issued.
Year ended	October 31, 1887.. . . .	4,599
"	" 1888.. . . .	3,275
"	" 1889.. . . .	3,282
"	" 1890.. . . .	3,273
"	" 1891.. . . .	2,449
"	" 1892.. . . .	2,955
"	" 1893.. . . .	2,936
"	" 1894.. . . .	2,552
"	December 31, 1894.. . . .	2,682
"	" 1895.. . . .	2,118
"	" 1896.. . . .	2,665
"	" 1897.. . . .	2,972
"	" 1898.. . . .	3,037
"	" 1899.. . . .	3,904
Six months ended	June 30, 1900.. . . .	1,970
Year ended	" 1901.. . . .	6,461
"	" 1902.. . . .	8,768
"	" 1903.. . . .	7,349
"	" 1904.. . . .	6,890
"	" 1905.. . . .	8,798
"	" 1906.. . . .	12,370
Nine months ended	March 31, 1907.. . . .	10,596
Year ended	" 1908.. . . .	18,690
"	" 1909.. . . .	22,431
"	" 1910.. . . .	22,854
"	" 1911.. . . .	21,754

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STATEMENT showing number of Homestead Entries granted in the Provinces of Manitoba, Saskatchewan, Alberta and British Columbia for fiscal year 1910-11, as compared with fiscal year 1909-10.

Provinces.	1910-11.	1909-10.	Increase.	Decrease.	Total 1910-11.	Total 1909-10.	Increase 1910-11.	Decrease 1909-10.
Manitoba—								
Winnipeg.....	1,994	1,356	638	.....			
Dauphin.....	1,012	1,062	.....	50				
Brandon.....	76	111	.....	35				
	3,082	2,529	638	85	3,082	2,529	553	
Saskatchewan—								
Yorkton.....	1,315	1,243	72	.....			
Estevan	1,033	884	149	.....			
Regina	435	567	.....	132				
Humboldt	1,738	1,609	129	.....			
Prince Albert.	1,871	1,240	631	.....			
Moosejaw	5,285	10,901	.....	5,616				
Medicine Hat.	1,589	.....	1,589	.....			
Battleford.....	2,215	1,905	310	.....			
Swift Current.	5,568	.....	5,568	.....			
Saskatoon	4,178	3,296	882	.....			
	25,227	21,575	3,652	5,748	25,227	21,575	3,652	
Alberta—								
Calgary.....	5,450	6,255	.....	805				
Lethbridge	933	4,948	.....	4,015				
Red Deer.....	2,032	1,824	208	.....			
Edmonton.....	5,112	4,107	995	.....			
Peace River...	291	53	238	.....			
Medicine Hat.	2,146	.....	2,146	.....			
	15,964	17,187	3,587	4,826	15,964	17,187		1,223
Br. Columbia—								
Kamloops	202	257	.....	55				
N. Westminst.	4	20	.....	16				
	206	277	.....	71	206	277		71
Grand total for fiscal year 1910-11					44,479			
" " " 1909-10						41,568		
							4,205	1,294
Net increase for fiscal year 1910-11							2,911	

CORRESPONDENCE.

The following statement shows the number of letters received and sent by the department in each year since its establishment.

Departmental Year ended October 31.	Letters Received.	Letters Sent.	Total.
1874.....	3,482	4,120	7,632
1875.....	1,974	2,189	4,163
1876.....	2,256	3,097	5,353
1877.....	3,137	3,677	6,814
1878.....	4,642	6,009	10,651
1879.....	5,586	6,179	11,755
1880.....	8,222	9,910	18,162
1881.....	13,605	15,849	29,434
1882.....	25,500	30,300	55,800
1883.....	27,180	33,500	60,680
1884.....	27,525	33,386	60,911
1885.....	33,970	43,957	77,967
1886.....	60,964	67,973	128,937
1887.....	47,845	60,890	108,735
1888.....	43,407	52,298	95,705
1889.....	48,316	50,500	98,816
1890.....	36,200	36,008	72,208
1891.....	38,000	36,267	74,267
1892.....	41,990	42,203	84,193
1893.....	50,794	48,145	98,939
1894.....	48,619	50,840	99,459
1895.....	49,991	45,898	95,889
1896.....	47,501	44,238	91,739
1897.....	65,714	64,147	129,861
1898.....	88,913	87,845	176,758
1899.....	95,023	91,876	186,899
1900.....	121,219	133,177	254,396
1901.....	144,978	136,348	281,326
1902.....	167,200	185,548	352,748
1903 (From June 30, 1902, to July 1, 1903).....	185,582	223,463	409,045
1904 (From June 30, 1903, to July 1, 1904).....	222,316	274,675	496,991
1905 (From June 30, 1904, to July 1, 1905).....	245,470	302,723	548,193
1906 (From June 30, 1905, to July 1, 1906).....	407,794	529,465	937,259
1907 (From June 30, 1906, to April 1, 1907).....	372,231	620,968	993,199
1908 (From March 31, 1907, to April 1, 1908).....	543,647	1,106,772	1,650,419
1909 (From March 31, 1908, to April 1, 1909).....	721,217	1,114,380	1,835,597
1910 (From March 31, 1909, to April 1, 1910).....	935,217	1,174,546	2,109,763
1911 (From March 31, 1910, to April 1, 1911).....	1,027,933	1,280,697	2,308,630

The number of registered letters during the departmental year ending March 31, 1911, was: received, 20,062; sent, 28,849.

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THE LAND SITUATION, MANITOBA, SASKATCHEWAN AND ALBERTA.

Total land area—

Manitoba.. . . .	40,848,880 acres (approx.)
Saskatchewan.. . . .	143,927,680 “
Alberta.. . . .	150,117,760 “
Grand total.. . . .	334,894,320 “

SURVEYED AREA.

	Manitoba.	Saskatchewan.	Alberta.	Total.
	Acres.	Acres.	Acres.	Acres.
Area in surveyed sections all water covered lands deducted. Not including surveyed land in forest reserves.. . . .	24,581,878	65,733,061	32,980,614	143,295,553
The following are the areas of water covered lands in surveyed sections.. . . .	3,178,947	1,571,027	1,664,945	
Area of road allowances.. . . .	879,163	1,368,181	1,013,165	3,260,509
Area of parishes and river lot settlements.. . . .	486,311	81,974	96,603	664,888
Area of forest reserves: (Not including Rocky Mountains reserves, 11,636,320 acres).. . . .	2,452,960	509,642	224,960	3,277,562
Area of Indian reserves (including 6,683 acres north of surveyed area in Saskatchewan and 93,856 acres in northern Alberta). Figures furnished by Department of Indian Affairs, May 11, 1911.. . . .	337,887	1,141,893	1,249,778	2,729,558
Area of Indian reserves surrendered.. . . .	55,423	262,016	252,475	569,914
Grand total.. . . .				153,797,984

Total area under homestead, South African Volunteer, pre-emption and purchased homestead entry, including patented homesteads (chiefly even-numbered sections)	55,614,520	acres
Total area granted to railway companies on account of land subsidies (chiefly odd-numbered sections)	31,864,074	"
Total area school land endowment (unsurveyed area not included)	7,963,254	"
Total area granted to Hudson's Bay Company.	6,575,400	"
Total area otherwise disposed of (Northwest half-breed scrip and military scrip, Manitoba swamp lands, sales and irrigation lands)	11,952,853	"
Total area under grain crop (including wheat) 1910	13,823,900	"
Total area under wheat, 1910	7,960,400	"

UNSURVEYED AREA IN MANITOBA, SASKATCHEWAN AND ALBERTA.

As to the remaining land area unsurveyed, a large proportion has not yet been explored, except in a very partial way, but from what is now known generally of the character of this surveyed land the area available for some forms of agriculture, though of much less average value than the lands surveyed at this date, might be given as follows:—

Manitoba	10,000,000	acres
Saskatchewan	18,000,000	"
Alberta	60,000,000	"
Total	88,000,000	"
In territory to be added to Manitoba	10,000,000	"
Total	98,000,000	"
If this net total were cut in half, the result should represent very conservatively an area of farming land of good quality and fairly equal in productiveness to the settled area of 49,000,000	49,000,000	"
Add surveyed area	153,797,984	"
Grand total	202,797,984	"

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The total area under cultivation in 1910, according to figures in the Census and Statistics monthly for December, 1910, was:—

Manitoba.	5,318,989	acres
Saskatchewan.	7,436,560	"
Alberta.	1,808,719	"
<hr/>		
Total.	14,564,268	"

making the area then under cultivation equal to only seven per cent of the above estimated area available for that purpose.

SCHOOL LANDS ENDOWMENT.

	AREAS (Acres).			
	Manitoba.	Saskatchewan.	Alberta.	Total.
Statutory School Lands (Sections 11 and 29 in each Township) unsold.....	712,840	3,192,160	1,987,840	5,892,840
Statutory School Lands (Sections 11 and 29 in each Township) sold.....	563,520	500,516	484,500	1,548,536
Lands in lieu of Statutory School Lands unsold.....	10,800	12,480	224,600	247,880
Lands in lieu of Statutory School Lands sold.....	13,335	1,433	70,694	85,462
Statutory School Lands (Sections 11 and 29 in each Township) unsold—outside the limits of School Lands Map (in Northern Alberta).....			188,536	188,536
School Lands in Unsurveyed Territory (Approximate areas).....	730,705	4,230,610	4,594,525	9,555,840
School Lands in Unsurveyed Territory to be added to Manitoba—(Approximate areas).....	6,110,293			6,110,293
Totals.....	8,141,493	7,937,199	7,550,695	
Grand total.....				23,629,387

NOTE—The above areas do not take account of school lands in forest reserves.

	Manitoba.	Saskatchewan.	Alberta.	Total.
The average prices per acre for School Lands sold to April, 1911, are as follows :—	\$9.41 per acre (From May 1883)	\$13.47 per acre (From March 1900)	\$11.54 per acre (From May 1887)	
The total net amounts received on account of principal and standing to credit of School Land Fund to April 1, 1911, are as follows :—	\$2,797,334 01	\$1,688,932 77	\$1,292,014 92	\$5,778,281 70

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STATISTICS AS TO RAILWAY MILEAGE, BY PROVINCES.

Year.	Manitoba.	Saskatchewan.	Alberta.	Totals.
1893	1,470	748	807	3,025
1894	1,471	965	807	3,243
1895	1,472	965	807	3,244
1896	1,470	965	807	3,242
1897	1,570	965	807	3,342
1898	1,592	965	807	3,364
1899	1,603	993	908	3,504
1900	1,815	993	908	3,716
1901	2,056	1,107	978	4,141
1902	2,128	1,102	978	4,208
1903	2,224	1,117	978	4,319
1904	2,364	1,180	1,020	4,564
1905	2,672	1,523	1,020	5,215
1906	2,823	1,973	1,200	5,996
1907	3,074	2,025	1,323	6,422
1908	3,110	2,081	1,323	6,514
1909	3,205	2,630	1,323	7,158
1910	3,526	3,350	1,774	8,650

RAILWAYS IN MANITOBA, SASKATCHEWAN AND ALBERTA, 1910.

Railways.	Manitoba.	Saskatchewan.	Alberta.	Total.
Canadian Pacific Railway.	1,529	1,750	1,270	4,549
Canadian Northern Railway....	1,531	1,183	219	2,933
Grand Trunk Pacific Railway	304	417	285	1,006
Great Northern Railway.....	162	162
Total....	3,526	3,350	1,774	8,650

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STATEMENT of Land Sales by Railway Companies having Government

YEAR.	HUDSON'S BAY COMPANY.		CANADIAN PACIFIC RAILWAY COMPANY.		MANITOBA SOUTH-WESTERN COLONIZATION RAILWAY COMPANY.		QU'APPELLE, LONG LAKE AND SASKATCHEWAN RAILROAD AND STEAMBOAT COMPANY.	
	Acres.	Amount.	Acres.	Amount.	Acres.	Amount.	Acres.	Amount.
		\$		\$		\$		\$
1893.....			93,184	295,288	14,164	57,559	1,603	.....
1894.....	7,526	48,225	43,155	131,628	6,312	28,063	640	.....
1895.....	4,431	23,209	53,453	176,950	5,623	22,330	2,391	.....
1896.....	9,299	52,410	66,624	220,360	21,254	88,568	286	.....
1897.....	10,784	53,277	135,681	431,045	63,800	234,644	2,524	.....
1898.....	62,000	310,000	242,135	757,792	106,473	363,982	22,534	.....
1899.....	56,875	274,625	261,832	814,857	58,019	199,458	61,030	178,517
(Fiscal Year) 1900.....	70,196	352,631	379,091	1,152,836	133,507	437,449	18,932	53,974
(Fiscal Year) 1901.....	82,308	399,804	339,985	1,046,665	59,749	214,953	22,266	74,810
(Fiscal Year) 1902.....	269,577	1,112,332	1,362,478	4,440,500	206,411	713,365	39,835	147,365
(Fiscal Year) 1903.....	330,046	1,939,804	2,260,722	8,472,250	250,372	699,210	843,900	1,476,900
(Fiscal Year) 1904.....	144,857	879,910	857,474	3,516,864	29,522	113,303	.....	.....
(Fiscal Year) 1905.....	139,721	865,905	411,451	2,045,800	80,342	296,936	.....	.....
(Fiscal Year) 1906.....	236,191	1,863,375	1,012,322	6,015,060	83,418	360,889	.....	.....
(9 months to March 31, 1907).....	69,158	742,221	851,083	4,817,632	3,051	22,645	1,353	16,789
(Fiscal Year) 1908.....	21,184	267,215	81,060	737,367	31,982	153,007	5,621	68,869
(Fiscal Year) 1909.....	25,449	288,836	29,331	33,390	10,396	84,845	37,662	380,371
(Fiscal Year) 1910.....	104,382	1,297,454	655,585	10,473,425	14,501	126,950	106,000	964,600
(Fiscal Year) 1911.....	267,038	3,747,768	715,095	10,372,661	20,313	284,859	113,533	1,237,204
Total....	1,911,022	14,819,001	9,853,741	56,292,420	1,199,209	4,502,955	1,280,110	4,599,399

SESSIONAL PAPER No. 25

Land Grants and by the Hudson's Bay Company.

CALGARY AND EDMONTON RAILWAY COMPANY.		CANADIAN NORTHERN RAILWAY COMPANY.		GREAT NORTHWEST CENTRAL RAILWAY COMPANY.		TOTALS.		AVERAGE PER ACRE.
Acres.	Amount.	Acres.	Amount.	Acres.	Amount.	Acres.	Amount.	
	\$		\$		\$		\$	\$ cts.
11,260	.....	.....	.....	.....	.....	120,211	352,847	2 93
11,035	.....	.....	.....	.....	.....	68,668	207,856	3 02
46,815	.....	.....	.....	.....	.....	114,713	222,489	1 94
10,553	.....	.....	.....	.....	.....	108,016	361,338	3 34
9,436	.....	.....	.....	.....	.....	222,225	719,016	3 23
15,481	.....	.....	.....	.....	.....	448,653	1,431,774	3 18
24,738	53,335	.....	.....	.....	.....	462,494	1,520,792	3 28
46,653	128,256	.....	.....	.....	.....	648,379	2,125,146	3 27
116,719	352,037	.....	.....	.....	.....	621,027	2,088,269	3 36
323,494	1,033,396	.....	.....	.....	.....	2,201,795	7,746,958	3 56
231,800	909,600	183,736	631,503	128,435	522,490	4,229,011	14,651,757	3 46
129,007	563,507	64,469	313,575	41,858	177,081	1,267,187	5,564,240	4 39
109,191	512,898	231,707	1,221,469	17,593	103,564	990,005	5,046,572	5 09
85,784	480,063	204,966	1,014,351	20,003	137,503	1,642,684	9,871,241	6 01
59,515	346,064	289,576	1,711,109	4,023	41,470	1,277,759	7,697,930	6 02
8,606	75,644	196,946	1,746,504	1,294	13,855	341,072	2,985,992	8 78
6,370	66,508	*	*	165	7,935	109,273	1,211,885	11 08
18,323	182,926	285,428	2,783,010	571	6,863	1,184,790	15,835,228	13 36
11,820	116,231	277,414	3,336,797	1,438	27,417	1,507,151	19,122,937	12 68
1,276,600	4,820,465	1,734,242	12,758,318	215,380	1,038,178	17,565,183	98,764,267	

IMMIGRATION.

COMPARATIVE statement of arrivals at inland and ocean ports during the fourteen years, ending March 31, 1911.

Year.	Great Britain and Ireland.	Other Countries except United States.	United States.	Total.
1897.....	11,383	7,921	2,412	21,716
1898.....	11,173	11,608	9,119	31,900
1899.....	10,660	21,938	11,945	44,543
1900 (6 months).....	5,141	10,211	8,543	23,895
1900-1.....	11,810	19,352	17,987	49,149
1901-2.....	17,259	23,732	26,388	67,379
1902-3.....	41,792	37,069	49,473	128,334
1903-4.....	50,374	34,785	45,171	130,330
1904-5.....	65,359	37,255	43,652	146,266
1905-6.....	86,796	44,349	57,919	189,064
1906-7 (nine months ending March 31).....	55,791	34,217	34,659	124,667
1907-8.....	120,182	83,975	58,312	262,469
1908-9.....	52,901	34,175	59,832	146,908
1909-10.....	59,790	45,206	103,798	208,794
1910-11.....	123,013	66,620	121,451	311,084
	723,424	512,443	650,661	1,886,528

BRITISH IMMIGRATION.

It is gratifying to be able to record a still further increase in the volume of British immigration. The foregoing table shows that the immigration from Great Britain and Ireland for the fiscal year 1910-11 was 123,013, compared with 59,790 for the previous year. This is the heaviest immigration we have ever had from the British Isles in any single year and this, too, in spite of the greater restrictions imposed by the regulations now in force, which are very stringent and which have resulted in our admitting none but high-class immigrants, people well qualified to succeed in this country. The enforcement of these regulations has had the effect of reducing the deportation of immigrants of all nationalities from 1,748 in 1908-9 to 784 in 1910-11.

CONTINENTAL IMMIGRATION.

It will be observed that a substantial increase has taken place also in the number of immigrant arrivals from over-seas, the number increasing from 34,175 in 1908-9 to 66,620 in 1910-11.

Having in view the higher standard now required by the immigration regulations of Canada, this increase in the volume of continental immigration argues well for the effectiveness of the propaganda being carried on in continental countries. This propaganda, it may be remarked, is much restricted by the local laws, the fact being that we have a really free hand only in Belgium of all the continental countries.

A very large proportion of the continental immigrants have made entries for homesteads in western Canada, many others purchasing lands from corporations and

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private owners and others, engaging as farm labourers or in domestic service, so that on the whole, this is a very satisfactory class of immigration.

AMERICAN IMMIGRATION.

The foregoing table shows that this year has broken all previous records with a total of 121,451 immigrants from the United States. This is exceedingly satisfactory and shows the excellence of the work of our agents in that country. Our immigrants from the United States are practically all farmers and farm-labourers, drawn for the most part from the farming communities of the western states. They come equipped with experience, common sense and the necessary implements and other means of making a good start in their new surroundings, and there is every reason to feel pleased and gratified with the arrival of these people in such large numbers.

JUVENILE IMMIGRATION.

Particulars with respect to juvenile immigration are given in the report of Mr. G. Bogue Smart, the chief inspector of British immigrant children and receiving homes. I would direct particular attention to Mr. Smart's interesting report.

SURVEYS.

During the year, 5,683,200 acres of land were subdivided into sections, and resurveys were made of 616,960 acres, as compared with 7,423,200 acres of original subdivision and 1,642,880 acres of resurveys during the previous year. The decrease in the number of acres subdivided is chiefly due to the fact that during 1909, the last large tract of unsurveyed open prairie was divided into sections, and the lands surveyed during 1910 were all more or less wooded. Resurveys were not carried on to the same extent as in former years because it was found that where lands had passed from the control of the Dominion any resurvey affecting them would require the authority of provincial legislation. This authority has been promised in the provinces of Saskatchewan and Alberta.

In addition to the subdivision and resurveys, nine hundred and thirty miles of base lines and initial meridians were established and numerous miscellaneous surveys were made.

Eighty-eight parties in all were employed, seventy-three of these being engaged for the season and fifteen for short periods only. Of the seventy-three regular parties, five were engaged on inspection of surveys executed under contract, eight on base lines and initial meridians, twenty-six on miscellaneous surveys and resurveys and thirty-four on subdivision surveys under contract.

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The distribution of these parties by provinces is shown in the following table:—

—	In Manitoba.	In Saskatchewan.	In Alberta.	In British Columbia.	Partly in one province and partly in another.	Total.
Paid by the day.....	1	2	16	10	10	39
Under contract.....	1	12	21	.....	.....	34
Parties engaged for a short time only.....	.....	5	4	6	.....	15
	2	19	41	16	10	88

One hundred and eighty-three whole townships and twenty-three fractional townships were completely subdivided, while a partial subdivision was made of four hundred and six others.

Resurveys were made either partial or complete, of one hundred and ninety-seven townships.

The total mileage surveyed during the year was 17,541, making an average per party of 274 miles for sixty-four parties; twenty-four parties are not included owing to the nature of their work.

A special effort has been made to keep the block outlines surveyed well in advance of the township subdivision. This work is in practically unexplored territory and the difficulties of transportation are very great. One party worked during the summer on the principal meridian and on the base lines west of Lake Winnipeg. During the winter the same party established the fifteenth base through the country in the vicinity of The Pas. The third meridian was produced northerly to township 64, and the seventeenth base was run westerly towards the fourth meridian. The fourth meridian was extended northerly to township 95, and portions of the 18th, 19th and 20th bases were run westerly from it. The fifth meridian was established beyond the Peace River, and the 21st base west of the fifth meridian was completed. One party which remained in the field during the whole year, completed the base lines south of Grand Prairie in the Peace River district, and commenced the work of marking out the boundaries of the block of 3½ millions of acres conveyed by the province of British Columbia to the Dominion government.

The surveyors under contract were employed in the subdivision of townships skirting the northern fringe of surveyed territory and extending from southeastern Manitoba to the Peace River district.

The twenty-six day parties employed on miscellaneous work were engaged chiefly in the restoration of obliterated surveys, in the completion of work rendered necessary by the change in topographical features and in the laying out of lands required for settlement or for coal and timber.

A party under Mr. C. Engler worked in the vicinity of Fort Smith, and determined by latitude observations the position of the northern boundary of Alberta. Another party, under Mr. H. W. Selby, was engaged in adjusting and surveying

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settlers' claims at Athabaska Landing and McMurray. Mr. Selby was accidentally drowned in the Athabaska river on his return trip from McMurray. He was one of the most devoted of the country's public servants and had been specially selected for the difficult work of adjusting conflicting claims in the settlements along the Athabaska on account of his fidelity and excellent judgment.

Mr. A. O. Wheeler, topographer, resigned his position early in the season. For two years previously he had been engaged on the examination of lands in British Columbia, but his principal work for the department had been in connection with the photo-topographical surveys in the Selkirks and Rocky Mountains during the past decade.

Nine parties were employed in the foot-hills of western Alberta, from the international boundary to the Yellowhead pass. Some of the land surveyed was of value for agricultural purposes but most of it was covered by coal mining applications.

The examination and classification of the vacant lands in the valleys of the railway belt, British Columbia, was continued by Messrs. A. J. Campbell and R. D. McCaw. In addition, eight survey parties were engaged in the railway belt in the subdivision of desirable lands and in laying out timber berths. Mr. M. P. Bridgland continued the triangulation survey west of Revelstoke.

Mr. W. Thibaudeau, C.E., was engaged on a reconnaissance of the Winnipeg and English rivers, in order to determine the most suitable locations for storage reservoirs for water-power development.

Following is the usual table of subdivision or settlement survey work completed each year since the inception of the surveys, with the result of last season's operations added:—

Period.	Acres.	Number of Farms of 160 acres each.
Previous to June, 1875	4,792,292	29,952
1874	4,237,864	26,487
1875	665,000	4,156
1876	420,507	2,628
1877	231,691	1,448
1878	306,936	1,918
1879	1,130,482	7,066
1880	4,472,000	27,950
1881	8,147,000	50,919
1882	10,186,000	63,662
1883	27,234,000	170,212
1884	6,435,000	40,218
1885	391,680	2,443
1886	1,379,010	8,620
1887	643,710	4,023
1888	1,131,840	7,074
1889	516,908	3,231
1890	817,075	5,106
1891	76,560	476
1892	1,396,200	8,720
1893	2,928,640	18,304
1894	300,240	1,876
1895	406,240	2,539
1896	506,560	3,166
1897	428,640	2,679
1898	859,840	5,374
1899	1,022,720	6,392
1900 (first 6 months)	735,480	4,595
1900-1901	1,603,680	10,023
1901-1902	2,553,120	15,967
1902-1903	6,173,440	38,584
1903-1904	12,709,600	79,435
1904-1905	10,671,520	66,697
1905-1906	4,973,920	31,087
1906-1907 (9 months)	3,819,700	23,873
1907-1908	6,123,040	38,269
1908-1909	7,412,870	46,330
1909-1910	7,423,200	46,395
1910-1911	5,683,200	35,520
	150,946,465	943,410

THE ASTRONOMICAL BRANCH.

The work of the Observatory, under its principal divisions, Astrophysics, Meridian, Astronomy, Geophysics and determination of latitudes and longitudes, has been continued as formerly. An anemograph, which, by electrical means, records the direction, pressure and velocity of the wind, has been mounted above the roof of the building. Apart from this, no important addition has been made to the instrumental equipment, though minor improvements have been made to several of the instruments.

The foundation of the small building spoken of in my last report, which is to house an instrument carrying the micrometer and stellar camera, was laid last summer, but the superstructure was not proceeded with. In consequence, the order has not been given for the instrument in question. The piers for the azimuth marks have been erected, and the foundations laid of the two buildings which are to surround them. Wooden sheds have been built covering the piers to protect them from the weather, pending completion of the permanent structures.

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Additional office space is needed. The offices of the Boundary Surveys, as well as those of the Geodetic Survey in part, are now in rented quarters in the city. As the operations of these surveys are closely connected with the work of the Observatory, the separation of the offices is a source of inconvenience in administration. Moreover, certain departments of the Observatory itself have grown beyond the space allotted them, especially the library and the workshops.

The larger part of the Observatory grounds has been terraced and sodded, and the necessary roads prepared. Electric lights have been placed on the grounds and along the pathway leading to the electric railway. The residence for the Chief Astronomer was completed, and occupied by him at the end of July.

At the meeting of the International Union for Co-operation in Solar Research, held at Mt. Wilson, Cal., in August, the standing which the Dominion Observatory has attained was recognized by the allotment to it of a share in the work of determining the solar rotation. The other observatories associated in this, are: Pulkova, Russia; Allegheny, Pa.; Mt. Wilson, Cal.; Cambridge, England; and Edinburgh, Scotland. Mr. Plaskett also, who attended the meeting as representative of the Observatory, was placed on three important committees.

The system of distribution of time in the government buildings has worked satisfactorily during the year. There are now eight secondary master clocks (synchronized by the principal clock at the Observatory) and 292 dials operated by them.

Two observers were employed in the determination of latitudes and longitudes of outside points, including the observing station established in 1909 at Fort Osborne, Winnipeg, six stations in Saskatchewan and Alberta, and two in Ontario.

Two observers were employed on the Magnetic Survey. Forty-eight stations were occupied along the main line of the Canadian Pacific railway between Chapleau and Moosejaw, and forty-four stations in Ontario.

The survey of the 141st meridian under the Boundary Treaty of 1906 was continued. The vista cutting and the placing of the final monuments were completed between White river and the Yukon, and also, north of the Yukon, to a point about half-way to Porcupine river. On the latter section, the triangulation and the topographic survey were completed. The survey of the line is, therefore, finished between the last mentioned point and the Natashat range, south of White river. The projection of the meridian was carried to a point ten miles north of Porcupine river.

The survey is carried on by two large surveying parties, Canadian and American, each divided into several sub-parties.

The precise levelling by Mr. D. H. Nelles was completed to a point on the 141st meridian. This line of levels is now continuous from White Pass along the White Pass railway and the Dawson road to Dawson, and thence west to the meridian. The datum is sea level at Skagway, Alaska, connection having been made by an American surveyor between Skagway and White Pass, along the railway.

Two surveying parties were employed on the survey of the boundary of the coast strip of Alaska (Treaty of 1903), one in the Lynn canal region, and one at the head of Portland canal. This work is largely topographical, having in view the completion of the maps necessary to illustrate the location of the boundary line.

One surveyor was engaged in placing reference marks for the boundary line through the Straits of Georgia and Fuca, and in making the necessary triangulations and topographic surveys to properly locate the points.

About 250 miles of the resurvey of the 49th parallel, along the southern boundaries of Saskatchewan and Manitoba were completed. It is anticipated that the survey will reach Red river this coming season.

The re-survey of the 'Ashburton' line, between the provinces of New Brunswick and Quebec and the state of Maine, was continued, following St. Francis river, along which the boundary runs. The survey and the setting of the reference monuments were completed to a point on the boundary of Temiscouata county, Quebec.

Much regret is felt at the death of Mr. Geo. C. Rainboth, D.L.S., the surveyor in charge of the Canadian party on this section. He was taken ill in camp in October, when he was about to bring his season's work to a close. Desire to see personally to the arrangements necessary in this connection led him to delay seeking medical advice. Becoming worse he was brought to Edmundston by canoe, whence it was hoped to bring him to his home in Ottawa, by rail. He died on the train at Rivière du Loup, November 2. Mr. Rainboth was well known throughout the Ottawa valley where he had practised his profession from his youth. He had also made many surveys of Dominion lands for this department in the Canadian west. Since 1905, he was employed on the Boundary Surveys, having charge of the Canadian share of the field work on the re-survey of the international boundary from Richelieu river to the source of the St. Croix river.

The survey of the boundary between Maine and New Brunswick, where it follows St. Croix river, has been continued. The survey has now been practically completed from the mouth of the river to the outlet of the lakes, near Vanceboro.

These boundary surveys, excepting those of the Alaska boundary, that is, in the Straits of Georgia and Fuca, along the 49th parallel, along the St. Francis river, and along the St. Croix, are conducted under the provisions of articles 8, 6, 3 and 2 respectively, of the Boundaries Treaty of 1908.

Article 1 of that treaty provided for the definition of the boundary line in Passamaquoddy bay.

In my last report, I mentioned the dispute as to certain parts of this boundary, which prevented the completion of the delimitation. The dispute has since been settled by the ratification of a treaty (signed May 21, 1910), which defines the boundary at the point in question by courses and distances, seven in number, beginning at a certain point lying between Treat island and Friar's Head, in Passamaquoddy bay, and ending in the middle of Grand Manan channel. The placing of the reference monuments for this part of the line has not yet been undertaken by the Boundary Commissioners.

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On the Geodetic survey, two observers were employed, one in Ontario, one in Quebec, measuring the angles of the primary triangles. Three reconnaissance parties to select points for extension of the triangulation worked respectively in the western peninsula of Ontario, to the east of Georgian bay, and on the British Columbia coast. The station building party, whose duty is to erect towers, when necessary, at the points chosen in the reconnaissance, worked north and northwest of Toronto. Three parties were employed on the precise levelling. One of these connected with a bench mark of the United States Coast and Geodetic Survey at Stephen, Minn., and carried a line of levels north to Emerson, and thence west following the railways nearest to the international boundary. The object of this was, in part, to establish a datum for the topographical surveys made in connection with the boundary survey. Another levelling party worked in Nova Scotia and the third in Ontario.

The field men of the Geodetic Survey were employed in the computing office of the survey during the winter and good progress was made in the calculation of the triangulation.

FORESTRY.

A number of additions have been made to the forest reserves, increasing the area reserved from 3,450,720 acres to 16,128,640 acres. The most notable addition is the Rocky Mountain Forest Reserve, covering all the eastern slope of the Rocky Mountains in the province of Alberta above a general elevation of four thousand feet above sea level. The boundary of the reserve was determined after a careful examination on the ground by two forest survey parties. All agricultural land has been excluded and nearly all grazing land. The grazing lands included are narrow strips in the valleys of the rivers. This reserve forms the watershed for the provinces of Alberta and Saskatchewan and the preservation of the timber of the slope is therefore of the utmost importance. Steps will be taken to organize an efficient protective force and to provide for the management of the timber on proper scientific principles.

Unfortunately, last year was a dry season in the west and forest fires did great damage. This was particularly the case in the province of Alberta where the forests on the Rocky Mountains suffered severely. As, however, the states of Montana and Idaho, immediately to the south, had much greater losses, including loss of life, although the expenditure on protection there has been much greater, Canada may feel that under the circumstances she has escaped very well. It emphasizes, however, the necessity for perfecting the protective service in every way possible.

The demand for trees for planting on farms in the prairie country is now so large that the capacity of the nursery station at Indian Head is greatly taxed to meet it. As the output from that nursery, averaging about three million trees per annum, cannot be greatly increased it will be necessary to provide additional nursery accommodation, and steps in that direction are being taken.

IRRIGATION.

There has been, in the last few years, a considerable development in irrigation in the provinces of Alberta and Saskatchewan and the dry weather of last year has

caused a more favourable sentiment towards irrigation than has previously existed, with the result that the demands for water are equalling and sometimes exceeding the natural supply. The supply of the cities and towns for domestic purposes is also becoming a matter of serious moment. The hydrographic survey is, therefore, being extended to obtain necessary information in regard to the water supply, and investigations are being made of the possibilities of increasing the natural supply by storage. There is no more vital question in the western prairie provinces than that of the water supply.

DOMINION PARKS.

The Dominion parks, in the Rocky Mountains and at other places, are proving very popular. The number of tourists from other countries resorting to the mountains of the Canadian west is increasing rapidly. And more important, perhaps, is the fact that in all parts of the west the demand for outdoor resorts for the convenience of our Canadian people is being made, and such resorts as have been established within forest reserves and elsewhere are proving attractive and are being greatly utilized. This is a gratifying feature, for it indicates that the prosperity of the west is giving the people greater leisure for pleasure and recreation and that the healthful outdoor influences of the woods and lakes and streams are being appreciated.

In the Rocky Mountains park, the bath houses at the hot springs are found to be inadequate to the demands now made upon them. As they were erected a good many years ago they are also lacking in many modern conveniences. Plans are being prepared for new bath buildings at this park and the object will be to have buildings erected that will be modern in construction, adequate for all future demands to the capacity of the springs, and a credit to the National Parks of the Dominion.

The necessary inspection for the laying out of Jasper park, the new park along the line of the Transcontinental railway through the Rocky Mountains, is being made and preliminary work has been done on several roads and trails. Surveys of the locations of the necessary townsites are also being made. This park is of great natural beauty and should be a great attraction to tourists.

The buffalo herd at Buffalo park, now numbering 900, are in satisfactory condition and have settled down quietly to life in the park. The new shipments to the park, from the Pablo herd in Montana, during the year were 35, and this completes all the shipments from that herd, although it was found impossible to secure a few scattered bands which have finally been given up.

SCHOOL LANDS.

A number of auction sales of these lands were held during the summer and autumn in the provinces of Saskatchewan and Alberta, with most satisfactory results.

In Saskatchewan the sales were held at the following points, namely, Prince Albert, Weyburn, Arcola, Stoughton, Francis, Estevan, Esterhazy, Abernethy, Rosethorn, Hanley, Saskatoon, Dauphin and Yorkton.

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The area sold at the auction sales was 304,056.45 acres for \$4,564,175.04, or an average price of \$15.01 per acre.

In addition to this 76.95 acres were sold to boards of trustees for school sites, and 448.06 acres were also sold, under the Railway Act, to railway companies, making the total area disposed of during the year 304,581.46 acres for \$4,569,631.28, or an average price of \$15 per acre.

In Alberta the sales were held at the following points, namely, Camrose, Medicine Hat, Vermilion, Vegreville, Tofield and Edmonton.

There were 181,866.71 acres disposed of for \$2,212,834.05, or an average price of \$12.16 per acre.

In addition to the above, 47.12 acres were sold to boards of trustees for school sites, and 470.07 acres to railway companies for right-of-way and station grounds, making the total area disposed of 182,383.90 acres for \$2,216,911.95, or an average of \$12.11 per acre.

In Manitoba no general auction sales were held, a large area having been disposed of the previous year, but a few small parcels were disposed of, comprising in all 621.80 acres, for \$14,994, or an average price of \$24.11 per acre.

In addition to the above, 48.61 acres were sold to railway companies for right-of-way, &c.

The total area sold in the three provinces during the fiscal year was 487,635.77 acres, for \$6,801,980.76.

GRAZING PERMITS.

There were 1,256 grazing permits issued during the year, in addition to which there are still 507 grazing leases in force.

The total revenue from grazing was \$24,270.63.

COAL LEASES.

During the fiscal year 26 coal leases were issued, there being now 68 leases of this kind in force.

The revenue from this source was \$20,255.80.

HAY PERMITS.

The revenue from hay permits was \$6,089.20.

Attached to the report of the chief of the School Lands Branch are three statements, lettered 'A,' 'B' and 'C,' showing, duly classified, the revenue from the school lands in the three provinces of Manitoba, Saskatchewan and Alberta, during the fiscal year.

From this it will be seen that the revenue from each province was as follows:—

Manitoba.. . . .	\$320,608 53
Saskatchewan.. . . .	707,727 83
Alberta.. . . .	582,077 11
Total.. . . .	\$1,610,413 47

Of this sum, \$54,018.58 was collected through the agencies, and \$1,556,394.89 at head office.

Under the provisions of the several orders in council in that behalf, the net revenue collected from the school lands in each province during the fiscal year, with the exception of the principal moneys of sale, was paid over to the government of each province, after deducting the cost of management.

Under this arrangement, cheques were issued to the provincial treasurer of each province as follows:—

Manitoba.. . . .	\$97,021 56
Saskatchewan.. . . .	52,674 37
Alberta.. . . .	131,306 67

In addition to the above amounts, the following sums were also paid to each province, as the interest on the school lands endowment fund for the fiscal year:—

Manitoba.. . . .	\$81,525 73
Saskatchewan.. . . .	44,047 45
Alberta.. . . .	34,749 52

Making the total payment during the fiscal year to each province on account of school lands as follows:—

Manitoba.. . . .	\$178,547 29
Saskatchewan.. . . .	96,721 82
Alberta.. . . .	166,056 19

Statements 'E,' 'F' and 'G,' attached to the report of the Chief of the School Lands Branch, show the balance standing to the credit of each of the school lands funds on April 1, 1911, to be as follows:—

Manitoba.. . . .	\$2,797,334 01
Saskatchewan.. . . .	1,688,932 77
Alberta.. . . .	1,292,014 92

The total expenditure on account of school lands for the three provinces during the fiscal year was \$35,042.29, or a little less than 2½ per cent of the total revenue of \$1,610,413.47.

THE YUKON TERRITORY.

Individual mining in the Yukon territory is now confined principally to the more recent discoveries, while on those streams which have been operated for a num-

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ber of years, dredging, hydraulicking, elevating and other forms of combined operations have to a large extent taken the place of the more primitive forms of mining.

An additional hydro-electric transmission plant has been installed on the north fork of the Klondike river, from which about 10,000 horse-power of energy has been developed. The furnishing of cheap power from this plant will have the effect of materially reducing the cost of production.

The gold production for the year shows an increase of over half a million dollars, and it would appear that with the completion of the additional water systems projected, and the generation of additional electric power the gold production of the territory will be correspondingly increased.

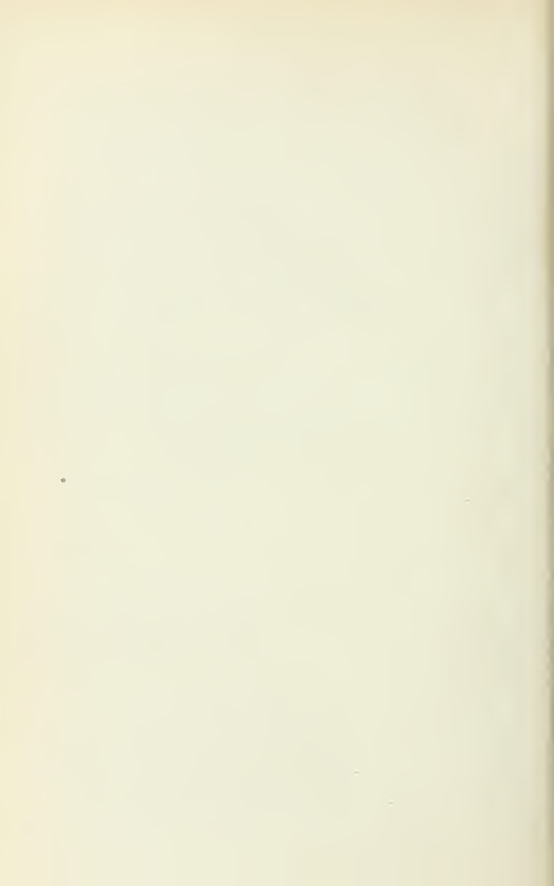
During the past year the Canadian Klondike Mining Company have installed on their property, situated on the Klondike river, what is reported to be the largest gold saving dredge now operating in the world. The bucket capacity of this dredge is sixteen cubic feet, and the digging ladder, with its endless chain of sixty-eight buckets, weighs 250 tons. The capacity of the dredge is approximately 15,000 cubic yards per day, which is almost three times as great as that of any other dredge in the territory. The great size and weight of many pieces of the machinery installed in this dredge required very special facilities for moving it inland, a distance of about 500 miles from tide-water, and is evidence of the great development which has taken place in the transportation facilities of the territory.

I have the honour to be, sir,

Your obedient servant,

W. W. CORY,

Deputy Minister of the Interior.



PART I.
DOMINION LANDS

DOMINION LANDS.

No. 1.

REPORT OF THE COMMISSIONER.

OFFICE OF THE COMMISSIONER OF DOMINION LANDS,

OTTAWA, May 17, 1911.

W. W. CORY, Esq., C.M.G.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I beg to submit my report for the twelve months ending March 31, 1911, on the Dominion Lands Branch of this department, together with the reports of the inspectors of Dominion Land Agencies, and of the agents of Dominion Lands for the several districts.

The following summary has been prepared of the work transacted in the Dominion Lands Branch during the period mentioned as compared with the corresponding twelve months of the previous year:—

	1910.	1911.
Number of files dealt with.	202,100	227,610
Letters written.	166,170	164,135
Triplicates.	105,957	107,049
		<hr/>
Total letters.	272,127	271,184
Applications for patent:—		
Number examined.	34,752	32,024
New applications.	21,750	18,126
Applications accepted and notifications sent out.	20,702	18,280

I have the honour to be, sir,

Your obedient servant,

J. W. GREENWAY,
Commissioner of Dominion Lands.

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No. 2.

REPORT OF INSPECTOR OF DOMINION LAND AGENCIES.

(R. E. A. Leech.)

OFFICE OF THE INSPECTOR OF DOMINION LAND AGENCIES,

BRANDON, MANITOBA, April 22, 1911.

J. W. GREENWAY, Esq.,
Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I beg to submit my annual report for the departmental year ending March 31, 1911.

Throughout the year there has been continued satisfactory growth in the settlement and development of the Canadian West.

In the southern portions of the prairie provinces the crop of 1910 was not up to the usual high standard of yield owing to the dry season. The crop, however, in central Saskatchewan and northern Manitoba was very satisfactory, and the high prices paid for wheat and flax particularly, have helped to realize a very satisfactory total on the year's operations.

During the past year two thousand more homesteads were taken in Manitoba and Saskatchewan than during the previous year, and the total land disposed of within the two provinces in homesteads, pre-emptions, purchased homesteads, and through the location of South African military bounty warrants, (which also requires the performance of settlement duties) amounts in all to approximately six and a quarter million acres.

So eagerly is land being sought after for homesteading that where homesteaders are in default in the performance of duties, cancellation proceedings are very promptly taken by people desiring to settle upon the land. In the past year there were twenty-five hundred cancellations in excess of the previous year.

The revenue received from entry fees, payments on purchased homesteads, pre-emptions, hay and timber permits, &c., during the past year, for the two provinces referred to, makes a total of \$1,115,769.01, which is a substantial increase over any previous year.

NEW LAND AGENCIES.

Owing to the very great rush of settlement into the south-western portion of Saskatchewan, it was deemed advisable to establish a new land agency, and accordingly an office was opened at Swift Current, April 4, 1910, with Mr. E. B. R. Pragnell as agent, and Mr. R. R. Reid, of the Moosejaw land office staff, as senior assistant. A staff of twelve was appointed to this office and two homestead inspectors for the district, and the office has been a very busy one since date of opening.

NEW SUB-LAND OFFICES.

During the year eight new sub-land offices have been opened as follows:—Ardal in Manitoba, and in Saskatchewan, Gravelbourg, Ogema, Unity, Kindersley, Kerrobert, Piggart and Wadena.

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The sub-land office at Swift Current was closed when the agency was established at that point. In addition the following sub-offices have been closed: Moosomin, Wapella, Redvers, Indian Head, Dubuc and Grenfell. At the present time there are thirty-seven sub-land offices in Manitoba and Saskatchewan.

INSPECTION OF OFFICES.

During the year I frequently visited all the land offices, keeping very close supervision of all the work being done. I also made a careful audit of the books and records, and my reports of same have been forwarded to you from time to time.

My assistant, Mr. R. G. Evans, has also checked the work and records of the sub-land offices regularly, and his reports have been forwarded.

SPECIAL INVESTIGATIONS.

I have been asked to make many investigations in difficult and intricate cases in connection with homestead matters. During the past year I made fifty-six of those investigations, and held public court investigations in twenty of those cases, as provided by the Dominion Lands Act, paragraph (g) of section seventy-six.

My assistant has also made thirty-one investigations.

GOVERNMENT PARKS.

The duties assigned to me include the inspection of all Dominion Government parks, namely, the Rocky Mountains, the Yoho, the Glacier, the Emerald, the Elk and the Buffalo parks. This work has been attended to during the past year.

HOMESTEAD INSPECTORS' OUTFITS.

I personally attended to the purchasing of new equipment of Homestead Inspectors' outfits, such as horses, buggies, harness, &c.

In addition to my office work, which is very considerable, a great amount of travelling is entailed. For the past year I have travelled by rail 46,515 miles, and by wagon 1,280 miles. My assistant travelled by rail 34,463 miles, and by wagon 1,145.

I regret having to report the death of two members of the Saskatoon lands office staff, Mr. Michael Curtin, May 16, 1910, and Mr. Frank E. Goodwin, February 28, 1911.

I beg to submit herewith statements of work performed, with comparative figures for the two preceding years:—

'A' Dominion Lands Offices.

'B' Dominion Lands Sub-Offices.

'C' Homestead Inspectors.

I have the honour to be, sir,

Your obedient servant,

R. E. A. LEECH,

Inspector Dominion Land Agencies.

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A.—Dominion Land Agencies, Manitoba and Saskatchewan, principal

Agencies.	Homestead Entries granted.	LAND SALES.			S. A. Scrip.	Applica- tions for Patent received.	Land Entries cancelled.
		Ordinary.	Pre- emptions.	Purchased Home- steads.			
Battleford.....	2,216	56	310	112	121	1,073	881
Brandon.....	76	23	.....	.....	.....	104	51
Dauphin.....	1,012	25	.....	.....	3	276	512
Estevan.....	1,039	25	632	57	27	577	611
Humboldt.....	1,739	43	.....	.....	47	2,011	656
Mooselaw.....	5,303	32	3,374	264	245	1,349	3,886
Prince Albert.....	1,862	51	4	9	39	709	532
Regina.....	434	45	19	10	4	1,034	241
Saskatoon.....	4,177	42	1,202	578	175	2,099	2,816
Swift Current.....	5,564	81	3,308	214	362	1,053	3,405
Winnipeg.....	1,997	135	.....	.....	4	357	745
Yorkton.....	1,315	71	.....	.....	12	1,722	533
Totals.....	26,734	629	8,849	1,244	1,039	12,344	14,869
Compared with 1909-10.	24,252	596½	9,550	897	1,120	14,257	12,310
Compared with 1908-09.	24,935	816	9,557	619	13,518	9,516

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transactions for the Departmental year ending March 31, 1911.

Timber Permits issued.	Hay Permits issued.	LETTERS.		Revenue.	No. of Staff.	EXPENDITURE.	
		Received.	Sent.			Salaries.	Disbursements
				\$ cts.		\$ cts.	\$ cts.
335	199	21,754	24,355	72,235 14	9	8,321 52	1,684 01
63	156	7,125	6,128	9,378 34	4	4,089 92	152 22
1,377	234	18,304	13,278	27,567 20	6	5,089 96	856 60
81	163	12,964	14,359	62,726 02	5	4,959 80	680 41
155	309	20,739	26,608	31,150 19	8	6,420 61	1,007 86
1,984	586	56,644	48,442	269,002 51	21	19,149 71	3,012 72
1,314	289	26,955	21,582	80,169 78	9	8,862 94	939 52
70	278	15,723	13,361	28,219 03	6	6,296 22	492 62
79	324	47,655	60,798	214,334 22	16	13,393 48	4,229 76
978	386	38,557	39,932	207,803 04	13	11,028 42	2,772 34
1,439	563	18,218	20,616	138,261 77	16	17,206 98	1,239 54
410	248	23,154	24,745	34,921 77	7	7,297 28	480 33
8,286	3,735	307,793	317,204	1,115,769 01	120	112,136 84	17,547 93
6,578	3,327	297,865	333,563	959,875 70	106	100,258 66	18,574 68
7,168	1,684	278,004	263,244	757,767 50	92	81,998 11	17,731 41

R. E. A. LEECH,

Inspector of Dominion Land Agencies.

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B.—DOMINION Land Sub-Agencies. Manitoba and Saskatchewan, work performed during the Departmental year ending March 31, 1911.

Name.	Place.	Applications for Homestead, Purchased and Pre-empted.	Applications for Patent.	Applications for Inspection.	Applications for Timber permit taken.	Applications for Hay permit taken.	Amount remitted to Land office.	EXPENDITURE.		Remarks.
								Salary.	Postage and Commission.	
Barschel, J. F. P.	Canora, Sask.	510	449	185	59	26	6,670 25	319 29	44	Resigned March 10, 1911.
Hiron, J. H.	Dodge, Sask.	34	17	12	5	1	447 00	42 58	4	Began March 11, 1911.
Robier, J. S.	Lanigan, Sask.	12	11	5		2	170 92	175 00	3	Offices closed Nov. 1, 1910.
Beggs, N. G.	Westmore, Sask.	198	449	149	97	32	2,220 00	420 00	28	
Budnot, H.	Sprague, Man.	131	241	97	7	21	1,878 50	480 00	25	
Calwell, J. W.	Wadena, Sask.	39			1		480 25	25 00		Paid by Commission formerly.
Carpenter, C. A.	Wadena, Sask.	229	258	81		8	3,215 00	323 33	27	Began June 9th, 1910.
Cook, C. C.	Arcoia, Sask.	28	30	14	2	5	377 00	300 00	6	
DeCemnick, A.	Makimik, Man.	276	36	121	105	25	3,187 83	300 00	23	
Denison, R.	Wynyard, Sask.	178	190	57	1	13	1,988 80	300 00	35	
Dorais, A.	Gravelbourg, Sask.	76	22	54	54	20	1,880 60	175 00	8	Began Sept. 1, 1910.
Dubois, M. J.	Duch Lake, Sask.	151	91	33	49	51	2,233 10	480 00	20	
English, J. J.	Maple Creek, Sask.	152	25	28		15	2,334 00	850 00	15	
Ferguson, Jas.	Gull Lake, Sask.	1070	227	422	371	188	14,566 93	600 00	79	
Green, R. L.	Ogema, Sask.	26	15	40	2	2	230 25	100 00	1	Began Nov. 1, 1910.
Hall, J. K.	Unity, Sask.	58	40				1,610 35	112 50	7	March report outstanding.
Harley, Hugh	Swan River, Man.	84	17	21	118	20	2,043 70	300 00	17	Began Nov. 15, 1910.
Hutcheson, J. C.	Kindersley, Sask.	525	137	351		22	17,466 00	400 00	77	
Holland, W. H.	Lloydminster, Sask.	196	182	42	45	16	2,385 95	600 00	27	
Lapointe, P.	Willow Branch, Sask.	492	173	263	605	61	12,882 85	600 00	45	
Maher, H.	N. Battleford, Sask.	353	330	95	73	79	5,249 20	510 00	53	
Mathers, P. E.	Weyburn, Sask.	892	300	306		51	14,828 15	900 00	72	
McGregor, D. S.	Rosthern, Sask.	254	168	85	41	22	3,138 86	600 00	22	
McKenzie, W. L.	Quill Lake, Sask.	63	60	34	1	11	665 25	80 50	11	Closed June 9, 1910
Murdoch, J. D.	Zealandia, Sask.	642	369	369		44	28,377 80	850 00	137	
Newth, R.	Linton, Sask.	67	176	85	11	20	1,214 75	480 00	23	
Oxley, R. W.	Hanley, Sask.	78	79	65			3,290 50	200 00	16	Resigned Sept. 1, 1910.
Hazel, F.	Hanley, Sask.	54	58	47			1,965 00	300 00	11	Began Oct. 1, 1910.
Palmerston, P.	Piney, Man.	58	7	8	68	12	112 89	230 00	11	Resigned Jan. 31, 1911.
Anderson, S.	Piney, Man.	4			1		40 25	12 50		Began March 15, 1911.

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B.—DOMINION Land Sub-Agencies, Manitoba and Saskatchewan, work performed during the Departmental year ending March 31, 1911—*Continued.*

Name.	Place.	Applications for Homestead, Purchased and Pre-emption.	Applications for Patent.	Applications for Inspection.	Applications for Timber permits.	Applications for Hay permits.	Amounts to Land Off. c.	EXPENDITURE.		Remarks.
								Salary.	Postage and Commission.	
							\$ cts.	\$ cts.	\$ cts.	
Paul, S. B.	Moosemin, Sask.	13	10	6	.....	.....	131 40	175 00	3 98	Office closed Nov. 1, 1910.
Roberts, A.	Wapella, Sask.	8	11	8	.....	.....	90 67	175 00	1 87	Office closed Nov. 1, 1910.
Robertson, A. J.	Davidson, Sask.	207	230	125	.....	22	4,010 00	480 00	34 26	
Ross, J. C.	.....	905	130	114	4	16	7,468 40	68 75	34 73	Resigned June 22, 1910.
McKinn, W. B.	Wilkie, Sask.	112	45	59	4	20	2,295 50	35 25	12 44	Resigned Aug. 4, 1910.
Gunn, J. J.	.....	231	224	111	6	17	9,773 90	821 00	45 95	Began Aug. 5, 1910.
Schionemann, E.	Kerrobert, Sask.	24	26	22	8	1	837 90	37 00	1 33	Began Feb. 28, 1911.
Schradler, E. G.	Macklin, Sask.	708	124	199	3	84	10,639 10	300 00	81 58	Began Oct. 4, 1910.
Schmke, A. W.	.....	39	26	18	.....	.....	1 385 00	50 00	3 20	Resigned June 1, 1910.
Arthur, F. G.	Nokomis, Sask.	154	293	83	9	1	1,891 60	250 00	16 00	Began June 1, 1910.
Sigurdson, S.	Arborg, Man.	37	15	23	10	.....	394 00	125 00	30	Began Oct. 1, 1910, March outstanding.
Somrall, F. G.	Biggar, Sask.	205	84	88	.....	17	2,531 64	233 50	24 66	Began June, 1910.
Stephens, A. M.	Redvers, Sask.	.....	26	2	.....	.....	.....	300 00	2 91	Office closed Dec. 31, 1910.
Taylor, R. B.	Greenfell, Sask.	1	12	.....	.....	.....	12 50	175 00	1 37	Office closed Nov. 1, 1910.
Wachina, Theo.	Stuartburn, Man.	20	17	13	63	1	323 95	300 00	2 62	
Whites, F. R.	Shelbo, Sask.	178	158	106	14	33	2,212 70	300 00	24 02	
Whites, J. F.	Herbert, Sask.	962	144	387	240	119	15,390 05	900 00	66 25	
Wild, A. E.	Melfort, Sask.	449	224	104	159	57	4,968 10	600 00	47 66	
Wilson, H. G. W.	Indian Head, Sask.	7	9	4	.....	3	89 50	175 00	207 00	Office closed Nov. 1, 1910.
		10,650	5,965	4,331	21,21	1,212	201,137 00	16,237 11	1,438 14	
Compared with year 1909-10.		11,039	6,914	3,714	20,46	1,138	162,319 02	15,071 16	1,156 34	
Compared with year 1908-09.		12,772	6,103	3,365	18,62	988	195,065 52	13,428 62	1,153 02	

R. E. A. LEECH,
Inspector Dominion Land Agencies.

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C.—STATEMENT showing principal work performed by Homestead Inspectors, Manitoba and Saskatchewan for Departmental Year ending March 31, 1911.

Name.	Headquarters.	Land Inspections made.	Applications for Patent made.	Miles travelled by Wagon.	Miles travelled by Rail.	Travelling and living Expenses for Self and Team.	Expenses for new and old travelling Equipment.	Remarks.
Axford, Fred.	Winnipeg.	164	25	3,002	2,443	\$ cts. 822 50	160 35	Str. assistant Wipg., Dec. 15, 1910.
Brooke, A. W.	Moosejaw.	25	9	376	542	81 80	....	Transferred Med. Hat, May 1, 1910.
Buchanan, D.	Basswood.	181	131	4,648	2,042	802 95	27 25	
Budgeon, M. B.	Prince Albert.	264	31	6,616	4,024	1,102 59	22 30	
Clouston, Geo. H.	Battleford.	178	7	2,746	1,307	610 05	18 05	
Conlor, R. J.	"	253	51	2,253	447	341 68	32 10	Resigned Oct., 1910.
Darrah, E. J.	Swan River.	115	34	2,695	2,180	704 92	6 90	
Dodds, J. T.	Swift Current.	418	70	4,773	1,851	788 81	44 10	
Duggan, L.	Humboldt.	122	....	1,042	4,690	881 60	3 00	
Gilson, J. S.	Brandon.	290	36	2,082	6,653	684 75	18 75	
Goodrich, J. S.	Radisson.	291	231	4,676	3,000	898 90	16 85	
Jonasson, P. C.	Winnipeg.	137	28	2,284	1,904	1,044 10	73 45	
Kennedy, F.	Regina.	179	81	3,023	6,820	1,103 81	126 65	
Lacumodiere, Wm.	Winnipeg.	175	28	2,945	2,056	1,175 05	239 40	
Milburn, Wm.	Swift Current.	240	159	5,183	5,332	1,261 50	664 40	
Moffat, Jas.	Marsden.	219	142	7,023	1,952	1,407 17	94 55	
McCarthy, D. J.	Lloydminster.	308	75	6,017	2,961	893 70	22 50	One month seed grain.
McGregor, R. E.	Gilbert Plains.	62	55	1,795	1,577	751 23	35 43	
McLeod, A.	Yorkton.	172	193	3,541	1,536	735 80	38 05	
McLeod, D.	"	372	256	5,619	1,067	876 17	29 25	
Nielol, Wm. F.	Edmonton.	102	41	2,832	2,025	561 66	25 40	"
Nurse, A.	Lanigan.	222	7	3,863	2,901	824 38	25 80	"
Oliver, Ed.	Moosejaw.	198	30	2,420	999	406 61	12 50	Leave from Nov. 1, 1910.
Ostrosky, M.	Winnipeg.	200	23	3,086	19,181	1,540 86	....
Pentland, R. P.	Hanley.	155	75	3,835	630	763 92	71 80	
Porteous, L. C.	Weyburn.	141	40	2,776	3,470	749 43	18 25	
Skene, A.	Grand Coulee.	211	246	3,574	4,925	758 45	28 85	
Smith, G. J.	Battleford.	43	19	830	736	299 00	36 90	Began Oct. 29, 1910.
Sutton, C.	Fertile Valley.	586	185	6,745	1,114	1,341 58	229 00	
Vollmer, F. J.	Moosejaw.	259	142	3,499	838	704 35	53 70	Began June 17, 1910.
Yake, J. L.	"	269	224	2,391	2,577	1,313 00	608 55	Began Feb. 1, 1911.
Morrison, D.	Winnipeg.	61	14	1,000	807	153 35	7 25	
Totals		6,462	2,588	103,490	89,137	26,445 20	2,791 33	
Comparative statement, 1909-1910.		6,516	3,396	114,660	61,231	24,884 48	2,694 15	
"		6,315	4,911	84,345	67,295	20,827 20	1,738 25	

R. E. A. LEECH, Inspector of Dominion Land Agencies.

No. 3.

REPORT OF INSPECTOR OF DOMINION LAND AGENCIES.

(J. W. Martin.)

J. W. GREENWAY, Esq.,

Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to submit my annual report for the fiscal year ending March 31, 1911.

The past year, in our branch, has been one of prosperity in that a very large number of homestead entries were granted and the general revenue of the different offices has increased tremendously. As each of the agents of Dominion Lands will be submitting separate reports to you covering the various agencies, there is no necessity for my entering into details and repeating figures which they will submit. For the purpose of comparison, I am submitting below a statement of the revenues and expenses for 1911, as compared with the previous year, in which statement you will notice that there has been an increase in the volume of revenue of \$340,870.64 and an increase in expenses of \$16,253.60, which increase is small, in proportion, compared with the increased revenue.

COMPARATIVE STATEMENT.

AGENCY.	REVENUE.		EXPENSES.	
	1911.	1910.	1911.	1910.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Lethbridge.....	148,503 37	242,994 99	9,006 48	11,090 44
Medicine Hat	155,633 70		11,748 06	
Calgary.....	285,273 29	247,354 31	21,555 62	17,168 54
Red Deer.....	80,515 50	59,919 64	8,012 79	7,172 68
Edmonton.....	320,733 97	120,378 86	22,212 88	22,638 03
Peace River	4,316 69	928 05	4,448 63	3,513 95
Kamloops.....	41,089 35	25,432 86	4,519 62	3,559 75
New Westminster.....	6,942 13	5,128 65	2,510 90	2,618 59
Totals.....	1,043,008 00	702,187 36	84,015 58	67,761 98
Totals 1910.....	702,137 36		67,761 98	
Increase.....	340,870 64		16,253 60	

These expenses are for the cost of operating different land offices, and do not indicate that the staffs of the different offices have been increased, as this is not the case, but is partly due to the opening of one new office, as well as granting increases in salaries to the officials already employed. These increases were warranted in

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every way, as all of the officials attached to the different offices have worked very hard indeed during the past year in order to have the business of the department carried on successfully.

By referring to the above statement you will notice that all of the offices, with the exception of Lethbridge, have increased their business, and the reason that the Lethbridge office revenue for 1911 is smaller than in 1910, is that a large portion of land within the Lethbridge agency during 1910 was placed in the Medicine Hat district at the time of the opening of the office at the latter point. This office was opened as a matter of convenience to the public, and it has since been demonstrated that a land agency was badly needed at Medicine Hat.

At the present time it looks as though it will be necessary to open a land agency at, or in the vicinity of, Grande Prairie, in Northwestern Alberta. At the present time the land in that territory is handled through the Peace River agency, situated at Grouard, Alberta. This agency is a long distance from Grande Prairie where the bulk of the northern settlement is going on, and I think it would be a great convenience to intending settlers, and settlers who are already in that locality, if an office was opened at Grande Prairie. Until now people going into that country were compelled to go via Lesser Slave Lake and Grouard, and in that way the office at Grouard was a great convenience to the travelling public, but from now on people going into that country will go via Edison, which is west of Edmonton, and from which point the provincial government has built a wagon road into the Grande Prairie country, cutting down the distance by between two or three hundred miles, so that should people going in be compelled to transact their business through the Peace River Agency it would be, to my mind, quite an inconvenience to them, and on account of the limited mail service in the north a sub-agency at Grande Prairie would hardly meet the requirements.

All of the agencies and sub-agencies in Alberta and British Columbia have been inspected regularly by myself and my assistant, Mr. J. A. Bannerman. A few changes have been made in staffs at New Westminster and Kamloops agencies. Mr. W. C. Cowell, formerly senior assistant at Red Deer, was appointed agent at the latter place and at New Westminster Mr. W. D. Magee has been made acting agent of Dominion lands on account of the continued ill health of Mr. John MacKenzie, who has been agent there for a great number of years.

While it is not expected that any immense rushes will take place during the coming year at any particular agency, it is expected that the business for 1911 and 1912 will be heavier than ever, and it may be necessary during the coming season to open some sub-agencies at convenient points. No sub-agencies during the past year were closed and a few were opened as a convenience to the public in transacting their business with the department.

You will notice from the above statement that the business in the British Columbia offices has increased, although the new regulations affecting the railway belt have not yet come into force. When they do it is expected that the business will increase immensely at both the New Westminster and Kamloops agencies.

A few changes have taken place in the Homestead Inspection service during the past year. Mr. W. D. Magee, who was formerly a Homestead Inspector in the Red Deer district, and who for some time past was acting in the capacity of special homestead inspector in the railway belt, has been made acting agent of Dominion Lands at New Westminster, and Homestead Inspector Chas. Grayson, of the Calgary district, has been made Inspector of Ranches, while Homestead Inspector Shandro, of the Edmonton district, resigned. These gentlemen's places have been filled by Messrs. Whiteside, Baptie and Green, while Mr. Joshua Fletcher has been appointed a homestead inspector for the Grande Prairie district, under the instructions of the agent of Dominion Lands at Grouard.

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The homestead inspection work is increasing very rapidly, and I am of the opinion that in the very near future we will require more inspectors. As you are aware, a number of homestead inspectors were, for six or eight weeks recently, employed on the distribution of seed grain, which, naturally, affected their regular duties, and this absence from their regular work allowed it to go behind to a certain extent, which makes it more difficult than ever to handle.

During the past winter there has been plenty of work for all settlers who desired to earn money, as large extensions have been made by the railways in the west and on telephone and irrigation construction, as well as plenty of development in the lumber camps.

Last fall a large area throughout the province was sown with fall wheat, and on account of the heavy snows of the winter and the good rains this spring, this class of grain is in splendid condition, and reports of the general conditions are excellent, and prospects for a bumper crop are good, and the country at the present time has a general air of prosperity.

Your obedient servant,

J. W. MARTIN,

Inspector.

No. 4.

REPORT OF THE AGENT AT BATTLEFORD.

DOMINION LANDS AND CROWN TIMBER OFFICE,

BATTLEFORD, SASKATCHEWAN, April 3, 1911.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to submit for your consideration the annual report for the fiscal year ending March 31, 1911.

The past year has been an exceedingly busy one, on account of the number of immigrants settling in this district. These immigrants are principally from Great Britain and the northern states, and are mostly from agricultural districts in the respective countries they have come from; and being thoroughly acquainted with agriculture, they have proven themselves to be of the very best class of settler obtainable. They have settled principally in the territory north of the North Saskatchewan river on the new line of railway from North Battleford in a northwesterly direction, which line it is proposed to extend to Athabaska Landing.

During the past season there have been fifty new townships subdivided and opened for entry. This land is of a class very suitable for mixed farming, and a great many homesteaders have availed themselves of the privilege of securing entries in this new territory, and several have purchased and located South African scrip in the immediate vicinity of their homesteads. This district is some eighty to ninety miles from this office, and it will only be a short time when, in my opinion, it would be advisable to open a sub-office in this locality. During the past year two new sub-

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offices have been opened, one at Biggar and the other at Unity. These offices have proven a great boon to the settlers locating in these respective districts. The sub-offices now open in connection with this agency are as follows:—

Lloydminster,
North Battleford,
Wilkie,
Macklin,
Biggar,
Unity.

The crops during the past season were very good indeed, and yields greater than the average in many instances have been reported. The quality of the grain was likewise very good, most of the wheat grading No. 2 Northern, with a very fair proportion grading No. 1 Northern. The oat crop was good and the sample was excellent, Messrs. J. C. Hill & Son of Lloydminster, securing the world's prize for oats, which oats were grown in the Battleford district.

The past winter was very severe, the month of January being the coldest experienced for several years; the thermometer on several occasions dropping to 50 degrees below zero. This severe weather caused some inconvenience to the stockmen in the district, and extra care had to be taken with the cattle during this time, but the percentage of losses was very small, and as the spring has now nicely opened up, the snow having been gone for the past two weeks, the stock are now in good shape. and stockmen report that all possible danger from losses is now past.

The district has been well supplied with fuel, there being a great quantity of timber in the northern country, and settlers have secured permits to acquire this timber for domestic use. A large quantity of coal has been shipped in from the Edmonton mines, which has supplied the southern part of the district, which is not so suitably situated for wood as the northern part, and while at times during the winter the coal supply was somewhat limited, on account of the railway companies being unable to deliver the coal through the snow blockades, yet at no time was the local stock completely exhausted, and all the settlers were able to secure whatever fuel was necessary.

There have been no cases of destitution reported for the district, and only in one or two individual instances has an application for an advance of seed grain been asked for, and in each of these cases it has been through the losses of property by fire, which has compelled the settler to ask for the assistance. These applications were forwarded to the Commissioner of Immigration at Winnipeg for his information.

The payments on seed grain and provision issues previously made, have been very large during the past year, and in several cases these liens have been paid by the settler before maturity. These advances as made by the government have been very beneficial to the settler, and have been the means of giving them independent assistance whereby they may perform their farming operations to success.

The Grand Trunk Pacific railway last season started the construction of their line from Oban to Battleford, and about sixty per cent of construction was completed at the time of the freeze up. The contractors are now resuming their work, and it is expected that within about four months this line of railway will be in operation to this town. This road comes through a territory which is very suitable for mixed farming, and immigrants are, at the present time, selecting this territory wherein to locate.

Nothing in the shape of construction was done last year on the North Battleford-Athabaska branch of the Canadian Northern railway, and it is expected that the part already graded will have the steel laid on at a very early date, and several miles more grading will be done this season. It is very important that this line of

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railway be completed as soon as possible, as it comes through a territory wherein there are hundreds of settlers located, and as these settlers have been there some two or three years, they will, this season, need transportation facilities whereby they can handle their produce instead of having to haul it to their present market.

The Grand Trunk Pacific have secured a charter, and promise immediate construction of a line from Battleford to Wainwright. This line will go through the Cutknife and Manitou Lake countries. These districts are of the finest wheat land in western Canada, and have been fully settled for several years past. The settlers of this district are finding great inconvenience in hauling their produce to the main line of the Canadian Northern, some of them having to haul 40 or 50 miles, but in the event of the Grand Trunk building this line they will have a railroad in the immediate vicinity of their farms.

It was deemed advisable last year to put a special inspection of homesteads on the lines of railway already in operation through the district, and instructions were issued to the respective inspectors calling for the total of 441 reports in connection with this work. These reports were all received from the inspectors, and in several instances, quarters were thrown open. This entailed some extra work, but did not seriously affect the general inspection work.

A timber inspector has been appointed and has taken charge of all the timber work. This work was formerly done by the homestead inspectors, but the appointment has proved very beneficial and the work is now done in a more satisfactory manner.

The general work of the office is in good shape, and I wish here to make special mention of the efficiency of the staff in performing their respective duties.

There are yet 14,417 quarter sections available for entry in this district, all of which are very suitable for mixed farming purposes.

Appended is a statement of work performed during the past fiscal year.

SUMMARY.

2,216 Homestead entries.. . . .	\$ 22,100 00
310 Pre-emption entries.. . . .	3,080 00
112 Purchased homestead entries.. . . .	1,110 00
303 Int. on pre-emptions.. . . .	4,334 77
148 Payments and int. on purchased homesteads.. . . .	23,960 15
152 Payments for improvements.. . . .	8,929 75
82 Townsite and land sales.. . . .	5,070 93
46 Payments on seed grain and provision liens.. . . .	1,893 14
396 Search and assessment fees.. . . .	132 96
2 Cash scrip.. . . .	114 29
325 Timber permits	247 16
1 Timber seizure	19 50
188 Hay permits (Dominion lands) 6,999 tons.. . . .	543 75
129 Hay permits (School lands).. . . .	352 40
1 Grazing permit (Dominion lands).. . . .	10 51
29 Grazing permits (School lands).. . . .	340 12
Sundries.. . . .	10 00
121 South African scrip.. . . .	13,041 acres.
4 Half breed scrip.. . . .	400 "
433 Applications for cancellation received.. . . .	
372 Cancelled on application.. . . .	
192 Proceedings abandoned and outstanding.. . . .	
288 Proxy entries made.. . . .	
116 Proxy entries cancelled.. . . .	
503 Entries otherwise cancelled.. . . .	
1,073 Applications for patent recommended.. . . .	
1,071 Homestead Inspector's Reports asked for.. . . .	
889 Homestead Inspector's Reports received.. . . .	
21,754 Letters received.. . . .	
24,355 Letters written.. . . .	

\$ 72,249 43

Your obedient servant,

W. R. RIDINGTON,

Agent of Dominion Lands.

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No. 5.

REPORT OF THE AGENT AT BRANDON.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS OFFICE,

BRANDON, MANITOBA, April 10, 1911.

J. W. GREENWAY, Esq.,
 Commisisoner of Dominion Lands,
 Ottawa, Ont.

SIR,—I have the honour to submit my report for the year ending March 31, 1911.

Last season the crops in this district were not up to the average, owing to want of rain; the prices, however, were high, counterbalancing the shortage.

The heavy snows of last winter have improved the condition of the ground and the present prospect is good. Seeding has commenced on the high lands and will be general by the middle of the week. The acreage to be put in crop is larger than last year; the farmers are continuing to put in different grains and roots, instead of exclusive wheat raising. Greater attention is being paid to stock raising yearly; the farmers of Manitoba import the best breeds of horses, cattle, sheep and swine.

The demand for land keeps steadily increasing and prices are good, purchasers coming from all parts. The lands available for homesteading in this agency consist of a few scattered quarter sections, which will eventually be taken by the sons of farmers in their vicinity. The cancellations grow less, as homesteaders securing land of any value make every effort to fulfil their duties, thus showing the importance they attach to farming operations. The country keeps improving rapidly; everywhere can be seen large, comfortable farm houses surrounded on one or more sides with small groves of trees, large well built barns, granaries, &c.

Immigration has commenced and the people are going by the thousands into the western parts—Saskatchewan, Alberta and the Peace River country chiefly. The demand for pamphlets, maps and the homestead regulations has not decreased; these have been mailed to all parts of the United States, showing this country is regarded as the home of the rising generation. The class of settler is much better than those who came in the past years, and they bring enough capital to get a fair start, adding to the prosperity of the country. The demand for labour still increases; farmers have difficulty in obtaining help outside and indoors. Wages are very high, men and women getting almost anything they ask.

The following is a statement of the work performed during the past year:—

Homestead entries granted.. . . .	76
Timber permits issued.. . . .	115
Hay permits issued.. . . .	102
Entries cancelled.. . . .	72
Applications for patents.. . . .	104
Letters received.. . . .	7,026
Letters written.. . . .	6,126

I am, sir,

Your obedient servant,

L. J. CLEMENT,

Agent of Dominion Lands.

No. 6.

REPORT OF THE AGENT AT CALGARY.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

CALGARY, ALBERTA, May 8, 1911.

The Commissioner of Dominion Lands,

Ottawa, Ont.

SIR,—I have the honour to submit herewith my annual report of the work of this office for the fiscal year ended March 31, 1911.

The lands disposed of as free grants, including South African and half-breed scrip, make a total of 9,602 entries and represent approximately 1,595,360 acres.

While there was a slight decrease, compared with the previous year, in the number of homesteads and pre-emptions granted, the total revenue received on account of Dominion lands amounted to \$209,193.43, an increase of \$24,495.35 over the previous year. This does not include various other payments made direct to head office on account of lands.

The business for the timber and mines and school lands branches of this district forms a heavy and important part of the work of this office. A detailed report of these branches has already been prepared and sent to head office. It is interesting, however, to note that the total revenue received here in this connection amounted to \$74,974.40, representing an increase over the previous year of \$13,930.10.

The present year gives promise of being exceptionally prosperous, not only from the agricultural standpoint, but in all lines of activity. Labour has been in good demand and wages high. Last season, Southern Alberta was somewhat dry, but nevertheless the crop was a very fair one. The autumn rains, together with a heavy snowfall during the winter, have left an abundance of moisture in the land, and as a result fall wheat is in excellent condition. Already spring wheat in some places is an inch above the ground.

The price of beef has continued to show an upward trend, and prices of all other produce have been in a similar direction.

The immigration movement has already this spring attained large proportions, and the general results of this movement are no better illustrated than in the growth of the city of Calgary, whose population is now conservatively estimated at 55,000. The building of the new Canadian Northern railway line from Saskatoon to Calgary has directed attention to and stimulated settlement in the large and fertile country extending from the Red Deer river to the interprovincial boundary line, and, although settlement has gone on rapidly, a glance at the map shows that considerable land is still left there, and offers good inducement to those who desire to engage in mixed farming.

2 GEORGE V., A. 1912

The following is a statement showing in detail the transactions of the Dominion Lands Branch of this office for the year:—

	No.	Revenue.
Homestead entries..	5,451	\$54,490.00
Pre-emption entries	3,573	35,670.00
Purchased homestead entries.. . . .	151	1,460.00
Improvements..	170	11,104.12
Land sales, cash..	63	19,907.52
“ scrip.. . . . .	..	240.00
Pre-emption payments..	1,999	51,852.56
Purchased homestead payments.. . . .	308	34,342.72
Searches, map sales, office fees.. . . .	503	126.51
Applications for patents received.. . . .	818	
Applications for inspections received.. . . .	1,734	
Entries cancelled..	4,022	
S. A. scrip..	369	
Half-breed scrip..	58	
		<hr/> \$209,193.43

Your obedient servant,

J. R. SUTHERLAND,

Agent of Dominion Lands.

No. 7.

REPORT OF THE AGENT AT DAUPHIN.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

DAUPHIN, MANITOBA, March 31, 1911.

J. W. GREENWAY, Esq.,

Commissioner of Dominion Lands,

Ottawa, Ont.

SIR,—I have the honour to submit my report for the Dauphin district for the year ending this day.

Taken as a whole the past year has been a favourable one to the district, plenty of moisture produced heavy crops, excepting in the more southerly parts, and where light land obtained, and samples were fair, though on summer fallow lands the growth was too rank, and in many instances in the northern parts such crops lodged and failed to fill, producing shrunken samples of wheat. A conservative estimate, based on Canadian Northern railway returns, shows that 2,506,000 bushels of grain were shipped over the lines of the Canadian Northern Railway Company from the district, to which may be added such as was carried over the lines of the Canadian Pacific Railway Company, which operates in the southern parts. Good prices were paid and farmers generally, were well satisfied.

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Hay was secured all through the north in large quantities, and a great part of this was shipped out in the early part of the winter, many buyers having come in from the south and secured at good prices, such as could be spared.

In spite of the severe weather during parts of December and practically all of January, stock wintered well, and there is still plenty of feed to carry them over until spring.

Wheat growing is being discontinued to a considerable degree in several parts where past experience has shown that oats and barley can be produced at better advantage, and in such sections more stock is being carried from year to year, with marked benefit and safer results. I hope to see this line greatly extended in the near future, as without question this district is more adapted to mixed farming than exclusive grain.

A considerable number of well bred cattle, horses and hogs have been imported, and the improvement is marked during the past few years in all varieties of stock.

More attention is being paid to hogs, which reached record prices last fall, and the demand far exceeded the supply. This should be remedied without delay, as the district each year has large quantities of rough grain that would pay far better if fed at home; this I am glad to see the settlers are opening their eyes to.

A considerable mileage of railway was put in operation, notably the Hallboro line from south of Neepawa to the province line in township 15, and also an extension of the Thunder Hill branch to Pelly. These, operated by the Canadian Northern Railway Company, have served sections which heretofore were rather remote from markets.

Improved train services have been placed on all lines, and the schedule maintained, except during the severe storms of December and January; even then no blockade occurred in the Dauphin or Swan River sections, which are so well sheltered, the open plains country only having suffered in this way.

The Hudson Bay line as far as The Pas has been operated regularly, and large quantities of fish were brought out over it, the winter operations being favourable for the numerous fishermen operating on the many lakes, and the catch being about equal to last year's, though more men were engaged, while the sample of whitefish is improving. Prices have not been quite as good as in some former years, still, sufficient to warrant good wages. Some 179 cars of all varieties were shipped out of the district.

Lumbering operations have been prosecuted with vigour, some forty portable mills having operated in the district, the returns from which have not as yet come in, but I subjoin a schedule showing the several quantities of timber for which permits have been issued in the district, showing class and location of cutting, under headings of the several reserves, Dominion and school lands. It is safe to estimate that a very large proportion of this, if not all, will be taken out. I also give figures as to timber seizures which have been made, classified under the same headings.

As to the larger operators, holders of regular timber berths, I give the following is an estimate of their cut, which will, I believe, be found fairly correct: 30,000,000 feet B.M.

The severe weather, coupled with heavy snowfall, somewhat curtailed the cut, and with higher prices for labour added to expense of taking out, but as an offset, increased prices for finished product will sustain the profits of manufacturers.

As timber is rapidly disappearing, I would again suggest that more stringent measures for its protection be enforced, and that in cases where dealers are found trespassing on the reserves wilfully, the trespass-cut timber should be confiscated, and sold at public auction, without any reference to claims set forth by the trespasser, the proceeds being applied to the preservation of the remaining stand. As I pointed out in my last and other reports, the imposition of double dues does not in any way

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act as a deterrent to operators who wish to transgress the regulations, more especially now when regulations will not permit any speculator to secure a berth in the reserves, where practically the whole of the available supply of timber in this district is, and \$6 per M. can well be paid, and a handsome profit remain; this has been exemplified in more than one large trespass during the year.

I would suggest that in cases of desires to secure timber for legitimate municipal and public works, the department extend to local agents the right to issue permits on departmental lands not in the reserves, on payment of such fee as may be decided on by the department, not to exceed a quantity to be fixed by head office, and subject to a report from the timber inspector in whose beat the cutting is to be done; this as it has been demonstrated that in many instances the several municipalities fail to make proper requisition in time to permit the agents to refer the question to Ottawa and secure permission for the issue of permits; though at the same time it would be advisable to place a limit on the quantity which any municipality could secure in any one year, which is the case where private parties are concerned, no such permits to be issued in a reserve. This might be enlarged to meet cases where churches and schools desire permits. I might also suggest that in cases of application to cut timber from school land, agents be given power to issue permits on receiving a report from a competent officer, such as a homestead inspector, forest ranger or timber inspector, that such cutting will not depreciate the value of the land; this, as in many instances it is found that where school lands are advantageously located, and on which timber can be cut and marketed with profit, it is stolen, and in this way the department is deprived of revenue, our officers not being able to closely patrol the large areas under their jurisdiction, all permits to be specially reported to the department, with a copy of the officer's report. This would, I think, save the public great delay, and at the same time fully safeguard the department, as no doubt local men know the conditions thoroughly.

The cutting of lines along the boundaries of the reserves so far as completed has been a marked benefit, and greatly assists the officers in controlling the cut, preventing the former heavy trespasses which were committed, and which the guilty parties, in many instances, claimed were done in ignorance of the location of reserves.

Fires have been well controlled, and none of serious consequence have occurred, such as did start having been successfully fought at an early stage.

Every possible method for the protection and growth of our rapidly disappearing timber should be met with the approval and assistance of the settler, as the Dauphin district now holds practically the whole visible timber supply for a large part of Manitoba, as well as for eastern Saskatchewan.

A steady improvement has been a feature of municipal work, better roads being established where opportunity offered, and permanent bridges erected on the main streams. There is, however, still much to be done in parts of the district along these lines, and this no doubt will be met as money comes in. Most parts of the district are now within easy access of markets.

I might suggest that in such districts where the homestead inspectors are not fully occupied with inspections, as is the case in this district, they again be employed in taking applications for patent, confining this work to instances where they are in the vicinity of persons who have signified their desire to apply; this, as in the more remote sections the expense of coming to the office with two witnesses is more than many of the settlers can well bear, and where an inspector is in a given district it would not entail any great expense on the department were he to advertise his coming and arrange to meet people at some central point, such as a post office or stopping house. In the several trips which business has demanded me to make during the past year, I heard many complaints as to the cost of making applications, and I consider the plan suggested would be highly appreciated by the public.

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Some changes have been made in the personnel of the staff, and the work has been carried on without the least friction, is well up, and has been so all through the year; all members have worked well.

A fire in an adjoining block caused considerable damage to the office building, but fortunately no loss was sustained other than to some stationery stored in a separate room, into which the fire ate. The files had to be removed across the street, but were placed in position again in time to resume business on the regular opening hour, and without any damage being done or documents lost or misplaced.

Business generally throughout the district has been good; tradesmen's wages have been somewhat higher; trade has improved, and in fact all classes have received many benefits during the year.

The health of the district has been good, though in some sections scarlet fever prevailed, resulting in a number of deaths; still, this could not be classed as epidemic, and is now, I understand, almost stamped out.

Your obedient servant,

F. K. HERCHMER

Agent of Dominion Lands.

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SCHEDULE of work performed in Dauphin office during the year ending March 31, 1911.

Class.	Number of Transactions.	Revenue.	
		\$	cts.
Homestead Entries.....	1,012	10,060	00
South African Warrants.....	3		
Improvement Payments.....	99	3,043	25
Land Sales Cash.....	25	3,576	27
Searches, Maps, &c.....	450	129	55
Applications for Patent Received.....	276		
Cancellation Received.....	355		
Entries Cancelled.....	572		
			16,803 07
Timber and Grazing—			
Timber Permits.....	1,367	6,636	49
Timber Seizures.....	53	1,634	57
Hay Permits.....	117	301	80
			8,572 86
Mining Lands and Yukon—			
Mining Fees.....	27	135	00
Rental.....	22	842	00
Assessment Payments.....	1	162	50
			1,079 50
School Lands—			
General Sales.....	2	508	80
Timber Permits.....	10	71	75
Hay Permits.....	117	242	90
Grazing Rentals.....	10	130	17
			953 62
Miscellaneous—			
Seed Grain Payments.....	6	148	15
Patent Fees.....	1	10	00
			158 15
			27,567 20
Letters Received.....	13,804		
Letters Sent.....	13,278		
Staff and Salaries.....	6		5,069 96
Contingent Expenditure.....			856 60

QUANTITIES OF TIMBER GRANTED UNDER PERMITS.

Feet B. M.....	5,019,473
Feet Lineal.....	66,729
Cords of Wood.....	12,139
Poles and Rails.....	29,200
Posts.....	49,600
Ties.....	4,600

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SCHEDULE of Timber Seizures made in Dauphin Office during Year ending March 31, 1911.

Place of Cutting.	Number.	Dues.		Expenses.		Collected.		B. M. feet.	Tineal feet.	Fence posts.	Roof poles.	Cords of wood.	OFFICER MAKING SEIZURE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		\$	cts.	\$	cts.	\$	cts.						A. McLeod.	F. Hoffman.	W. Middleton.	J. W. Robertson.	J. Seale.	D. Pearson.	W. Angus.	G. W. Nesbitt.	W. R. Sifton.	D. Buchanan.	K. L. McGregor.	T. E. Adams.	A. D. L.	W. Harvie.	E. J. Parroch.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Riding Mountain Reserve.....	17	729	85	22	20	739	00	60,934	1,702	960	20	114	5	3	5	2

SCHEDULE of Timber Permits issued from Dauphin Office during Year ending March 31, 1911.

Place of Cutting.	Free.		Fees.		B. M. feet.		Lineal feet.		Fence posts.		Roof poles.		Fence rails.		Cordwood.		Ties.		Piles, feet.	
	No.	No.	\$	cts.	No.	Amount.	No.	Amount.	No.	No.	No.	No.	No.	No.	No.	Cords.	No.	No.	No.	Amount.
Riding Mountain Reserve.....	203	281	3,774	36	434	2,218,643	9	10,465	59	23,030	11	4,700	9	9,800	139	3,594				
Duck Mountain Reserve.....	81	80	850	39	133	781,716	12	18,080	18	7,720	6	2,700	2	4,000	12	389				
Manitoba West Reserve.....	44	4	17	75	38	295,533	11	10,260	6	2,900	1	400	1	2,000	8	145				
Dominion Lands.....	256	128	1,587	96	398	1,813,681	27	26,373	35	15,450	4	1,500	3	4,100	157	7,084				
School Lands.....		10	107	25			1	550							9	377				
Cordwood berths, Dominion lands.....		5	Rent 125 00 Dues 156 00						1	500					3	550	4	4,000	1	1,000

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SCHEDULE of Hay Permits issued from Dauphin Office during Year ending
March 31, 1911.

Place of Cutting.	Number of Permits.	Number of Tons.	Amount.
			\$ cts.
Riding Mountain Reserve	64	1,194	145 70
Duck Mountain Reserve.....	2	14	2 40
Manitoba West Reserve.....	2	22	3 20
Dominion Lands.....	49	834	150 50
School Lands.....	117	2,192	242 90
Totals.....	234	4,456	544 70

LIST of Portable Sawmills operating in the Dauphin District during winter of 1910
and 1911.

Section.	Town- ship.	Range. W. 1 M.	Name.	Address.
7	18	20	Wm. Wilson.....	Sandy Lake.
12	18	20	Daily & Glenyor.....	Sandy Lake.
32	18	20	Donald Forestry.....	Elphinstone.
9	18	21	John Martin.....	Elphinstone.
36	19	21	Alex. Kippan.....	Strathclair.
30	20	22	Wm. Pedden.....	Rosburn.
36	21	25	Jos. Harious.....	Rosburn.
12	21	25	John Marton.....	Ranchvale.
32	21	26	Donald McTavish.....	Angusville.
28	18	25	P. Sutcliff.....	Birtle.
18	23	20	Frank Morris (not cutting locally)....	Dauphin.
29	23	22	Fred Cole.....	Glenlyon.
26	23	22	Walter Scott.....	Wilford.
6	24	23	Colin McMillan.....	Glenlyon.
26	24	25	Hector Ross.....	Mountain Gap.
36	23	27	Jacob Edel.....	Russell.
17	23	11	John Marshall, jr.....	
			J. F. W. Williams.....	Fork River.
			James D. Hunter.....	Fishers Siding.
24	26	27	John McCann.....	
24	27	27	Chas. Cockerill.....	
22	28	27	Robt. McBride.....	
4	38	27	P. McHaffie.....	
24	38	26	W. Herren.....	Fishers Siding.
			Geo. Hayes.....	Makinak.
19	22	17	Elders.....	Makinak.
6	22	16	Andersons.....	Laurier.
22	21	16	A. J. Cantin.....	Laurier.
12	21	16	Alex. McKinnon.....	Norgate.
18	20	15	Jas. McGillvary.....	Kelwood.
19	19	15	H. Stevens.....	Riding Mountain.
30	18	15	Jas. Mason.....	
34	17	16	Jno. Anderson.....	
12	17	16	Albert Walker.....	
12	16	17	N. Souchuck & G. Trevitzka.....	
26	18	17	Vistor Walstrom.....	
28	18	17	Jas. Hemmingson.....	
31	17	17	Narand & Olson.....	
24	18	17	Erick Hall.....	
33	18	18	Jno. Watson.....	

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No. 8.

REPORT OF THE AGENT AT EDMONTON.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

EDMONTON, ALBERTA, May 9, 1911.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to submit the annual report of this office for the fiscal year ending March 31, 1911.

The year just closed has been one generally favourable to the settlers of the district. Though somewhat dry in certain sections, a good crop was harvested; and as prices of farm products ruled higher than the average, the result was a very satisfactory financial return. Moreover, there was during the year a very considerable activity in railway extension and expansion along many lines of industry, which furnished a vast amount of employment for such of the settlers as might wish, for financial or other reasons, to avail themselves of the advantages which it offered. The general situation is one that should induce immigrants to locate in the district, and inspire with hope and confidence those who are already on the ground. As will be seen from the comparative figures appearing at the end of this report, there has been an increase in the number of entries granted during the year of about 25 per cent over the preceding twelve months.

It is satisfactory to note in this connection that the more wooded areas of the district are looked upon with greater favour than they were a year ago; and that the number of entries cancelled is relatively smaller than that of the preceding year. It is also satisfactory to note the greater effort put forth by railway companies to bring settlers into the district, and there is little doubt that the increase noted above is largely due to their efforts.

This increase, however, though satisfactory from the standpoint of settlement, is but a faint indication of the development that is taking place within the district and the consequent expansion in the volume of the business transacted through this office; for while the increase in revenue from the 'Patent Branch' is approximately 39 per cent, the increase in revenue as a whole is over 166 per cent. This very marked increase is due to the 'Timber, Grazing and Irrigation' and 'Mining Lands and Yukon Branches,' particulars regarding which will be found in my reports in that connection. It will, perhaps, be sufficient to state here that the former of these shows the very satisfactory increase of about 54 per cent while the latter shows a phenomenal increase of approximately 775 per cent.

From the above it will be readily seen that there has been an enormous increase in the volume of business handled by this office; but as the work was done under more favourable conditions as to office accommodation, it has been accomplished with but a very slight increase in the staff.

The closing month of the year shows an increase in the number of homestead entries granted of nearly 45 per cent, indicating that we are entering upon an unusually busy season. There is, however, a large area of newly surveyed land avail-

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able and quite sufficient to meet the demand. At the same time, it might be stated that a lack of railway facilities through portions of these surveyed areas continues to retard settlement.

The following comparative figures will serve in a measure to show what is going on in this district:—

	1910.	1911.
Patent Branch—		
Homestead entries.	4,093	5,109
Pre-emption entries.	18	17
Purchased homesteads.	14	40
Land sales (S.A.V. Scrip & Cash).	147	197
Applications for patent.	2,895	2,725
Applications for inspection.	1,511	1,531
Entries cancelled.	2,351	2,582
Revenue.	\$62,280.00	\$86,826.11
Timber, Grazing and Irrigation—		
Timber permits.	2,292	2,190
Hay permits.	292	533
Timber seizures.	60	54
Revenue.	\$31,372.29	\$48,087.18
Mining Lands and Yukon—		
Mining fees.	277	112
Rentals.	6	78
Royalties.	31	37
Coal permits.	6	3
Sundries.	23	953
Revenue.	\$19,958.13	\$175,747.58
School Lands Branch—		
Timber permits.	19	27
Hay permits.	276	397
Grazing rentals.	26	30
Coal rentals.	1	9
Sundries.	0	17
Revenue.	\$2,248.72	\$4,600.24
Miscellaneous—		
Seed grain repayments.	116	134
Revenue.	\$4,498.72	\$5,522.86
General—		
Letters received.	67,124	73,765
“ sent.	74,885	82,371

Your obedient servant,

K W. MACKENZIE,

Agent of Dominion Lands.

No. 9.

REPORT OF THE AGENT AT ESTEVAN.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

ESTEVAN, SASKATCHEWAN, April 12, 1911.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to submit the annual report of this office for the year ending March 31, 1911.

There has been an increase in the number of homestead and pre-emption entries over that of the preceding year and also of the revenue collected; the total for the year being \$62,726.02, as against \$57,382.52 of the previous year.

The crops of last year throughout this agency were above the average especially in the northern part of the district.

The Canadian Pacific railway will build 55 miles of railroad west from Estevan this year to connect with the Weyburn-Lethbridge branch.

Appended is a statement of work performed during the past fiscal year.

Letters received.	120,964
Letters sent.	140,359
Applications for patent.	557
Entries cancelled.	611
Applications for inspection.	515
Homestead entries.	1,039
Pre-emption entries.	632
Purchased homestead entries.	57
Improvements.	45
Land sales cash.	25
Land sales scrip.	27
Pre-emption payments.	762
Purchased homestead payments.	128
Searches.	210
Timber permits.	81
Hay permits.	163
Grazing rentals.	18
Coal lands mining fee.	5
Coal lands rental.	14
Coal lands royalty.	45
Sundries.	1
Seed grain payments.	3
Total revenue.	\$62,726.02

Your obedient servant,

R. CLAUD KISBEY.

Agent of Dominion Lands.

No. 10.

REPORT OF THE AGENT AT GROUARD.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

GROUARD, ALBERTA, April 3, 1911.

J. W. GREENWAY, Esq.,

The Commissioner of Dominion Lands,

Ottawa, Ont.

SIR,—I have the honour to submit herewith my annual report of the Peace River agency for the fiscal year ending the 31st ultimo.

The work performed shows a very gratifying increase over the preceding year. The total revenue of the office shows an increase of 462 per cent, and the number of quarter sections disposed of an increase of 815 per cent over last year. Below are the figures for the present year with comparative figures for the nine months ending March 31, 1910:—

	12 mos. ending Mar. 31, 1911.	9 mos. ending Mar. 31, 1910.
Homestead entries.. . . .	291	53
South African volunteer scrip ..	103	4
Entries cancelled.. . . .	35	6
Letters received.. . . .	2,743	1,000
Letters written.. . . .	1,752	863
Total revenue.. . . .	\$4,316.69	\$928.05

During the year I have visited Sawridge, Swan River, High Prairie, Whitefish Lake, Peace River Landing, Shaftsbury, Fort Vermilion, Spirit River and Grande Prairie Settlements, making inspections, accepting applications for entries and conducting any other business necessary in connection with this office. Up to the present about ninety per cent of the new-comers have settled in Grande Prairie, and it has been necessary for me to visit that point at more frequent intervals than the other places mentioned.

The present year promises to be an excellent one in every way. The influx of settlers is steadily increasing and they are as a rule of the most desirable class, being experienced farmers with sufficient means to carry them through until there is a market for their grain, other than local consumption. The heavy fall of snow last winter will provide plenty of moisture, and as present indications point to an early spring, we have every reason to look for good crops.

The clerical work of the office has been done in a most efficient and satisfactory manner by Mr. Butler, who is in charge when I am absent on my official trips. Mr. Turton has also performed his duties to my entire satisfaction.

Your obedient servant,

P. TOMKINS,

Agent of Dominion Lands.

2 GEORGE V., A. 1912

No. 11.

REPORT OF THE AGENT AT HUMBOLDT.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

HUMBOLDT, SASKATCHEWAN, April 11, 1911.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to submit the annual report of the Humboldt office for the year ending March 31, 1911.

I might say that the district suffered in parts, owing to the drought which was more or less prevalent last year in the western country, that portion more particularly affected being the central and western, while in the northern, the eastern and the southern parts, excellent crops were secured.

I am, through the courtesy of the Department of Agriculture of the province, able to furnish the figures giving a closely approximate idea of the acreage under cultivation, and the yield of the different grains grown, which are as follows:—

	Wheat.	Fall Wheat.	Oats.	Barley.	Flax.
Acreage.	492,248	117	283,095	23,211	21,551
Yield...	7,669,223	2,098	8,606,088	570,526	105,511

These statistics show a splendid result of the year's operations, notwithstanding the unfavourable season. Indications point to a much greater increase in the lands to be brought under cultivation this year, and there is an optimistic feeling prevalent throughout the district, assuring a greater achievement the coming season.

I am pleased to be able to state that a greater number of homesteads have been entered this year than the preceding one, and a slight increase is also to be recorded in scrip entries. The figures are as follows:—

	Homesteads.	S.A.V. Scrip.
1909-10.	1,608	44
1910-11.	1,734	47

There are still approximately 4,000 homesteads available for entry in this agency, for the most part lying in that triangle whose base extends from township 37 to 42, and its apex in the western part of township 42, range 25, west of the 2nd meridian. In this area, I am informed, there is a large amount of excellent land. The tract is more or less timbered, and is well watered with numerous lakes. Fires have run through a large part of the timber, leaving the land comparatively easy to break, and settlers will there find an ample supply of fuel and building material to meet their requirements. There are also lands to be found for entry all over the district.

The district is well supplied with transportation facilities, except the triangular tract already mentioned, but the building of the Thunder Hill branch of the Canadian Northern railway, and the Melville-Melfort branch of the Grand Trunk Pacific will place that part in close touch with railway conveniences, and practically leave no part of this agency at a greater distance than 15 miles from a railway.

SESSIONAL PAPER No. 25

I am pleased to be able to state that a transcription has been completed of all our old style township registers into the new loose leaf system, and I must express my appreciation of the willingness with which the staff of this office undertook this extra work. We have now a record that is eminently satisfactory and that is a credit to an office.

Appended is a statement of the work of the office for the year.

Patent Branch—

	Number.	Amount.
Homesteads.	1,739	\$17,440 00
Improvements.	168	6,322 70
Land sales—cash.	43	3,723 04
Land sales, scrip half-breed.	3	.....
Pre-emption payments before 1908.	1	200 20
S.A.V. scrip.	47	.....
Searches, map sales, office fees, &c.	639	194 80
Applications for patent received.	2,011	.....
Applications for inspection received.	534	.....
Entries cancelled.	656	.....

Dominion lands total. \$27,880 74

Timber, Grazing and Irrigation—

Timber permits.	155	38 75
Hay permits.	125	267 05
Timber permits, excess dues.	5	3 40
Hay permits, excess dues.	8	8 13

Timber dues, &c., total. 317 33

School Lands Branch—

Hay permits.	184	353 10
Grazing rentals.	75	710 75
Hay permits, excess dues.	5	4 00
Sundries.	2	45 00

School lands total. 1,142 85

Miscellaneous—

Seed grain and provision repayments.	35	1,809 27
--	----	----------

Miscellaneous total. 1,809 27

General—

Letters received.	20,739	.....
Letters written.	26,008	.....
Number of staff and salaries.	8	6,420 61
Disbursements.		1,007 86

Grand total. \$31,150 19

Your obedient servant,

A. NOBLE QU'Y.

Agent of Dominion Lands.

2 GEORGE V., A. 1912

No. 12.

REPORT OF THE AGENT AT KAMLOOPS.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

KAMLOOPS, B.C., April 1, 1911.

J. W. GREENWAY, Esq.,

Commissioner of Dominion Lands,

Ottawa, Ont.

SIR,—In submitting my annual report of this agency for the fiscal year ending March 31, 1911, I beg to say that since my appointment in June last, I have visited many of the outlying points of the district, which now extends from the Alberta boundary to North Bend and covers over four-fifths of the railway belt of British Columbia. This large tract of land is largely taken up by the great mountain ranges of the Rockies and Selkirks, and by the Columbia, Thompson and Fraser rivers. Much land, therefore, within the belt is valueless from an agricultural point of view, the altitude making it unsuitable for fruit raising, but along the fertile valleys and numerous lakes the very choicest of lands can be secured, upon which the best of market garden produce and fruits of many kinds can be grown with profit, as the soil is very productive.

The year just closed has proved the most satisfactory one since the agency was opened, and I have much pleasure in being in a position to report an increase in revenue of \$15,656.49. The increase in the general revenue of this agency is solely due to the special efforts made to collect payments in connection with land sales, many of which I found overdue. I communicated with the purchasers, and in consequence am able to report a revenue from this source alone of \$28,097.06, which I claim is a most satisfactory result.

Notwithstanding the decrease in the number of homestead entries, which is accounted for by the general reservation of lands in the Shuswap and Columbia divisions, the revenue of the agency, excluding several payments made direct to the department, has increased over 60 per cent. A very marked increase is also shown in the 'Mining Lands and Yukon Branch,' large deposits of gypsum, marble and valuable building stone having been discovered, and leases applied for.

The new regulations, in which provision was made for homesteads of reduced area, are still inoperative, to the great disappointment of many bona-fide settlers, and if I may judge by the numerous enquiries received at the office, and by mail, the contemplated regulations, if finally adopted, will be very popular. The district at present is somewhat handicapped from an agricultural standpoint, by the large area of valuable land held under reserve on account of being comprised in timber berths, but when the proposed joint inspection is made of these berths by a government official and a representative of the lumber companies, much valuable land will in all probability be released, and will be eagerly sought after by many who are desirous of establishing homes where the climate is unsurpassed, the scenery of rare attractiveness and beauty, and where many comfortable homes in the centre of healthy and enjoyable surroundings on small acreages, with intensive garden work and modern culture, could be maintained, once fruits and produce could be shipped.

SESSIONAL PAPER No. 25

Much might be said in favour of this province as to its climate, mountains, lakes, rivers and forests, scenery, sport, hunting, fishing and its open air life, but space will not permit. When it is realized that British Columbia imports annually enormous quantities of market truck, poultry, eggs, &c., and that this demand could easily be supplied from the fertile valleys of the railway belt, it is high time the settlers turned their attention to this business, which is undoubtedly a money maker. Outside the import of the Californian early produce, there is no apparent reason why this province, and particularly the belt, because of railway facilities, cannot supply the local demand and meet the requirements of the ever increasing populations of the great prairie provinces east of the Rockies.

Kamloops, Salmon Arm, Natch Hill, Enderby, Armstrong and many other places within the belt are renowned throughout the continent for their fine exhibits of fruit, and Armstrong celery and Ashcroft potatoes are household words. Much might be said of the wonderful productive power of bottom lands composed of peat, which, if drained and properly handled, will produce hundreds of dollars per acre annually.

Settlers need have no fear of locating in the belt, where all modern conveniences can be enjoyed, and within easy reach of medical assistance, schools, churches, and not too far from large centres, and the great convenience of the main line of the Canadian Pacific railway. The life is specially attractive to British and eastern Canadians. Land is still cheap, but it is advancing rapidly in value, as high as \$500 per acre being paid for bottom land, and \$1,000 per acre for an apple orchard. Many delightful home sites fronting on lake and river, would meet the demands of many wishing to experience milder winters than are found east of the Rockies, or a much drier climate than can be found at the coast.

The only portion of the district at the present time available, however, is the dry division, where, with irrigation, excellent results have been obtained, although without irrigation much success has attended the efforts of those who have carefully carried out the teachings of dry farming. In addition to several irrigation properties in actual operation with most successful results, many new irrigation projects are now before the department for consideration and approval, the intention of the promoters being to run the water by means of flumes a considerable distance from large reservoirs back in the hills.

In the dry division I realize that in the near future large areas of semi-arid lands will be brought under cultivation, the problem at the present being how best to conserve the winters' snows to ensure water for such lands at the proper season, but if the power referred to herein can be procured, the greater part of the irrigable lands can be supplied from the Thompson rivers.

Adams Lake, a large body of water, is admirably situated for the production of enormous power at comparatively little expense. I would respectfully suggest that the department might have an engineer's report on the feasibility of harnessing the mighty powers lying dormant in the water of this lake, for the production of power, and disposing of it for the irrigation of the lands within the dry division. This is a very valuable asset, and the department would do well to investigate the marvellous possibilities before considering the claims of private corporations.

The construction of the Canadian Northern Pacific railway down the valley of the North Thompson to Kamloops, thence west to the coast paralleling the Canadian Pacific Railway along the banks of the Thompson and Fraser rivers, will prove very beneficial to the settlers by bringing them in close touch with centres of industry, and the competition of these roads will naturally lead to an appreciable reduction in freight charges.

After a somewhat severe winter, with an almost unprecedented snowfall, the prospects for a bumper crop are excellent. The fall wheat is looking remarkably healthy, and a large yield is predicted. The heavy snowfall has necessitated much

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feeding, but I am pleased to say the cattle have come through the winter in splendid condition, very little loss being reported.

The optimism displayed by the settlers is indicative of the general prosperity existing throughout the west, and offers much encouragement to the intending settlers and the newcomer.

The question of the control of water rights within the railway belt, which the province has contended for a considerable time came under its jurisdiction, has on a test case being forced by the Provincial Legislature, been decided by the Privy Council in favour of the Dominion Parliament, which has exclusive legislative jurisdiction over the water within the railway belt.

An important civil case has just been decided at a sitting of the Supreme Court of British Columbia in this city, the judgment in which is of special interest to all holders of water records granted by the province in the railway belt. All water records granted since 1871 have, in the opinion of Judge Gregory, been nullified by the decision of the Privy Council. Special legislation dealing with this important subject will no doubt be enacted at an early date by the Federal Parliament. I have already received 100 applications for water records, all of which have been transmitted to the department for consideration.

Some indication of the work of this agency will be found in the appended statement:—

Homesteads.	\$2,010 00
Improvements.	1,508 89
Land sale payments.	28,097 06
Townsite sales.	487 40
Sundries.	181 70
Timber, grazing and irrigation.	8,281 20
Mining lands.	523 10
	<hr/>
	\$41,089 35

Your obedient servant,

W. C. COWELL,

Agent of Dominion Lands.

No. 13.

REPORT OF THE AGENT AT LETHBRIDGE.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

LETHBRIDGE, ALBERTA, April 22, 1911.

J. W. GREENWAY, Esq.,

Commissioner of Dominion Lands,

Ottawa, Ont.

SIR,—I have the honour to submit for your consideration this office's annual report for the year ending March 31, 1911.

SESSIONAL PAPER No. 25

The business transacted this year has not been so heavy as for the previous year, which is due principally to the fact that over four million acres of land was withdrawn from this agency and added to the Medicine Hat agency on April 1, 1910. This tract of land included practically all the available homestead land within this agency, and at the present time the homestead land is practically exhausted.

The work of this office at the present time is practically closing out previous transactions, but the business for the present year has been fairly heavy, considering the reduction in the area of this district.

The sub-agents and homestead inspectors deserve credit for the manner in which they have performed their departmental duties. The staff has worked faithfully and is worthy of special mention.

I submit a list of the work performed during the past year:—

Homestead entries granted.	935
Pre-emption entries granted.	318
Purchased homestead entries.	58
Improvements.	289
Land sales.	82
Pre-emption payments.	1,239
Purchased homestead payments.	113
Searches.	194
Applications for patent.	986
Entries cancelled.	1,108
Timber permits.	89
Timber seizures.	2
Hay permits.	36
Grazing rentals.	69
Letters received.	32,809
Letters written.	25,448

The total revenue collected for the fiscal year of 1910-11 through this office is \$148,503.37. This revenue is considerably smaller than for the previous year, but with the present prospects of a bumper crop, it is expected that the revenue for the coming year will far exceed all previous years.

Your obedient servant,

J. W. STAFFORD,

Agent of Dominion Lands.

No. 14.

REPORT OF THE AGENT AT MEDICINE HAT.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

MEDICINE HAT, ALBERTA, April 7, 1911.

The Commissioner of Dominion Lands,

Ottawa, Ont.

SIR,—I have the honour to submit for your consideration the first annual report of this office for the fiscal year ending March 31, 1911.

2 GEORGE V., A. 1912

This office was opened to the public on April 4, 1910, and has been kept exceedingly busy ever since, as can be noted by the appended statement of work. Settlers have been pouring in, mainly from the United States and eastern Canada, undeterred even by weather conditions which, unfortunately, were not favourable during the past summer.

The severe drought which affected Southern Alberta and the bordering western states would seem to emphasize the necessity of irrigating whenever possible, and with the encouragement given by the department several purchases were made during last year under the terms of the Irrigation Act.

The immense irrigation works undertaken by the Southern Alberta Land Company through a part of this district and westward are rapidly nearing completion. The headquarters of this company are located at Medicine Hat. I am informed by the general manager, Mr. J. D. McGregor, that water will be turned into the main canal some time next July, and some irrigation could be done this next fall if required.

One feature that may convey an idea of the magnitude of this undertaking is the creation of an artificial lake to serve as a reservoir, which will be 22½ miles long, half of which will be 2½ miles wide and 40 feet deep, and at no point will it be less than ½ mile wide. 'Lake McGregor,' as it is named, after the moving spirit of this enterprise, will be the second largest artificial lake in the world, and it is stated it will require 180 days to fill it.

Early last fall the southern part of this district was swept to a large extent by prairie fires, destroying the feed, already none too abundant, and leaving many of the ranchers in a rather precarious position. Moreover, this was followed by a severe winter, the cold lasting uninterruptedly during the whole of January and February and the snow fall was unusually heavy. It is too soon yet to ascertain what losses, if any, will be incurred by the stock men, but it is conceded that they will not be nearly so heavy as was feared at one time. The ranching industry, although curtailed to some extent by the incoming settlers, is still on a good footing and prosperous.

The distribution of seed grain by the department to needy settlers this spring is very much appreciated and will largely contribute to minimize the effects of last year's failure of crop.

This season is opening out most auspiciously. We have had heavy falls of rain and snow lately and the ground will most certainly be in the very best of condition for seeding operations.

The city of Medicine Hat is making very satisfactory progress. The cheap natural gas is now attracting the attention of manufacturers, and several plants have been started during the past year, while others are looking for locations.

I cannot close this report without making special mention of the splendid help furnished by this staff. The ordinary work supplied over the counter was heavy enough by itself, but in addition to that there was also a vast amount attendant upon the opening of a new office, such as copying new township registers, re-numbering all our files, indexing them, writing up new general index, &c. I am glad to say this is practically all completed and our records are in the very best shape to handle the heavy spring and summer rush of work. Night after night during the past summer the staff returned to work, ungrudgingly, and such conduct is undoubtedly deserving of warmest commendation.

Following is a list of the work performed during the past year.

I also inclose a separate statement showing revenue collected on account of mining lands during the same period.

Your obedient servant,

L. P. O. NOEL,

Agent of Dominion Lands.

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Month.	Payments re coal leases including fees.	Royalty coal.	Payments re Petroleum and Natural Gas Leases.
	\$ cts.	\$ cts.	\$ cts.
1910.			
April	65 00	62 90	
May	280 00	30 10	
June	105 00		5 00
July	30 00		
August	10 00		
September	60 00		
October	70 00	13 15	
November	120 00	25 00	5 00
December	90 00	4 50	490 00
1911.			
January	10 00	8 30	480 00
February	140 00	1 00	
March	20 00	5 25	
Total	1,000 00	150 20	980 00

	Number.	Amount.	Totals.
		\$ cts.	\$ cts.
<i>Patent Branch.</i>			
Homestead Fees	3,734	37,340 00	
Pre-emption Fees	2,611	26,110 00	
Purchased Homestead Fees	92	920 00	
Improvements	211	9,779 55	
Land Sales—Cash	60	11,074 62	
" Scrip			
Pre-emption Payments	1,378	36,583 87	
Purchased Homestead Payments	146	19,286 85	
Townsite Sales			
Searches, Map Sales, Office Fees, etc	218	50 25	
Applications for Patent Received	348		
Applications for Inspection Received	1,174		
Entries Cancelled	3,078		
Sundries—Patent Fees	3	30 00	
Dominion Lands—Total			141,184 14
<i>Timber, Grazing and Irrigation.</i>			
Bonus			
Ground Rent			
Royalty on Sales			
Timber Permits	606	293 45	
Timber Seizures	4	26 25	
Hay Permits	146	511 40	
Grazing Rentals—Cash	244	7,085 92	
" Scrip	16	2,000 00	
Irrigation Fees			
Sundries—Registration Fees	3	6 00	
Timber Dues, &c —Total			9,923 02

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	Number.	Amount.	Totals.
<i>Mining Lands and Yukon Branch.</i>		\$ cts.	\$ cts.
Mining Fees	37	480 00	
Rental	18	520 00	
Royalty	15	150 20	
Assessment Payments			
Coal Permits			
Sundries—Petroleum	6	980 00	
M. L. & Y. Br.—Total			2,130 20
<i>School Lands Branch.</i>			
General Sales			
Timber Permits			
Hay Permits	38	123 60	
Grazing Rentals	52	1,200 24	
Mining Fees	1	5 00	
Coal Rental			
Coal Royalty			
Scrip—Military	3		
" Half Breed	42		
" S. A. V. B.	241		
School Lands—Total			1,328 84
<i>Miscellaneous.</i>			
Seed Grain and Provision Repayments	32	1,067 50	
Sundries			
Miscellaneous—Total			1,067 50
Grand Total			155,633 70
<i>General.</i>			
Letters Received	39,866		
Letters Written	34,217		
Staff Salaries		10,224 00	
Disbursements		1,524 66	

SESSIONAL PAPER No. 25

No. 15.

REPORT OF THE AGENT AT MOOSEJAW.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE.

MOOSEJAW, SASKATCHEWAN, April 7, 1911.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to submit my report for the fiscal year ending March 31, 1911.

The great rush of settlers into this district continued throughout the year, and with the early opening of spring immigration commenced early. At the present time special trains carrying immigrants are arriving daily.

The opening of offices at Swift Current and Medicine Hat deprived this district of a large tract of open land, and as a consequence the business transacted during the past year does not compare with that of former years in so far as figures are concerned, but taking into consideration the amount of territory governed by this office at the present time, the past year was in proportion as busy if not busier.

With the assurance of railway facilities, the country south, between here and the international boundary is fast settling up, and a great many cancellations are filed daily, which is an indication of the alertness in securing suitable land.

A great many inquiries are received in regard to the possibilities of this district. These are given prompt attention and the applicant furnished with maps and any other literature on hand.

The indications are that the present year will be most prosperous in every respect.

Appended is a statement of the work performed during the fiscal year.

Your obedient servant,

J. RUTHERFORD,

Agent of Dominion Lands.

The following statement shows the business transacted in this office during the year:—

Patent Branch—

	Number.	Revenue.
Homestead entries.	5,303	\$52,920 00
Pre-emption entries.	3,374	33,650 00
Purchased homestead entries.	264	2,640 00
Improvements.	234	14,517 80
General land sales—cash.	32	2,632 99
General land sales—scrip.	1	60 00
Pre-emption payments.	1,749	43,959 37
Purchased homestead payments—cash.	414	51,995 06
“ “ “ —scrip.	3	540 00

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Patent Branch—*Continued.*

Townsite sales.. . . .			
Searches, office fees, &c.. . . .	351	108 15	
			\$203,023 37
Applications for patent received.. . . .	1,349		
Entries cancelled.. . . .	3,886		
Applications for inspection received.. . . .	2,028		
Scip (4,518.88 acres).. . . .	245		

Timber, Grazing and Irrigation—

Timber permits.. . . .	1,984	512 00	
Hay permits.. . . .	274	720 45	
Grazing rentals—cash.. . . .	36	1,001 34	
“ “ —scrip.. . . .			
Sundries.. . . .	24	12 75	
			\$ 2,246 54

Mining Lands and Yukon Branch—

Mining fees.. . . .	11	55 00	
Rental.. . . .	11	960 00	
Royalty.. . . .	6	54 35	
Coal permits.. . . .	2	10 00	
			\$ 1,079 35

School Lands Branch—

Hay permits.. . . .	312	550 75	
Grazing rentals.. . . .	21	246 94	
Mining fees.. . . .	1	5 00	
Coal rental.. . . .	1	20 00	
			\$ 822 69

Miscellaneous—

Seed grain and provision repayments.. . . .	27		\$ 1,830 56
			\$209,002 51

General—

Letters received.. . . .		56,644	
Letters written.. . . .		48,442	

No. 16.

REPORT OF THE AGENT AT NEW WESTMINSTER.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE.

NEW WESTMINSTER, B.C., May 8, 1911.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to submit the annual report of this agency for the fiscal year ending March 31, 1911.

During the past year that portion of the lands of this agency lying between townships 10 and 16 west of the 6th meridian were transferred to the Kamloops agency, thereby reducing to a considerable extent the area of this district.

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The past year has been one of the most prosperous in the history of the district; crops were harvested under favourable conditions. Fruit and vegetables were an average crop and the enormous demand caused by the increased population along the coast has enhanced the values of all commodities produced on the farm.

Farm and fruit lands have in many of the surrounding districts been subdivided into blocks of from five to twenty acres, and are being readily sold at prices ranging from two hundred to five hundred per cent higher than in any previous year.

The tide of immigration from the Pacific coast states south of here has been steadily increasing. A great many of those arriving here are on their way to the prairie provinces in search of farm lands.

The greater part of the unoccupied lands in this district are heavily timbered. A large proportion of them are mountainous and cannot be classed as agricultural lands. Some small areas in outlying districts that have been denuded of timber are still to be dealt with. Some of these would be suitable for fruit and vegetable culture, but the greater part of the lands in this agency that could be classed as agricultural lands have already been dealt with under homestead regulations.

Appended is a statement of the work transacted at this agency during the year:—

Letters received.. . . .	3,352
Letters written.. . . .	2,501
Homestead entries.. . . .	3
Total receipts.. . . .	\$6,942 13

Your obedient servant,

W. D. MAGEE,

Acting Agent of Dominion Lands.

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No. 17.

REPORT OF THE AGENT AT PRINCE ALBERT.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE.

PRINCE ALBERT, SASKATCHEWAN, April 11, 1911.

J. W. GREENWAY, Esq.,

Commissioner of Dominion Lands,

Ottawa, Ont.

SIR,—I have the honour to submit for your consideration the annual report for this office for the fiscal year ending March 31, 1911. Attached hereto are two schedules marked 'A' and 'B.'

Schedule 'A' gives a summary of the work performed and the revenue collected during the year, showing in the total the increase or decrease as compared with the previous year.

Schedule 'B' shows the revenue collected in connection with the school lands branch.

The total revenue collected amounts to \$80,170.78 as against \$76,689.27 for the previous year, being an increase of \$3,481.51.

The number of homestead entries granted during the year just closed shows an increase over the previous year of 620. Two new sub-agencies have been opened, one at Wadena and the other Shellbrook. The general office work in connection with the agency and the sub-agencies tributary thereto is in a satisfactory condition; the service rendered by the different members of the staff has been generally satisfactory.

Each year shows an increase in the number of settlers intending going in for mixed farming, and as the land in the Prince Albert district is particularly adapted for this class of work, I anticipate a greatly increased number of homestead entries during the coming year.

Your obedient servant,

GEO. L. DEMPSTER,

Agent of Dominion Lands.

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SCHEDULE A.—DOMINION LANDS.

STATEMENT of the business transacted at the Prince Albert Dominion Lands and Crown Timber Agency for the Year ending March 31, 1911, and comparative statements for former periods, as shown below.

	WORK AND RECEIPTS FOR YEAR ENDING MARCH 31, 1911.			CORRESPONDING PERIOD FOR PREVIOUS YEAR.			INCREASE; AS COMPARED WITH PREVIOUS YEAR.			DECREASE; AS COMPARED WITH PREVIOUS YEAR.		
	No.	Amount.	Totals.	No.	Amount.	Totals.	No.	Amount.	Totals.	No.	Amount.	Totals.
<i>Patent Branch.</i>												
Homestead fees.....	1,862	18,560 00		1,242	12,325 00		620	6,235 00		6	60 00	
Pre-emption fees.....	4	40 00		10	100 00					11	110 00	
Purchased homestead fees.....	9	90 00		20	200 00							
Improvements.....	166	3,464 97		146	2,320 30		20	1,144 67				
Land sales—cash.....	51	2,880 83		49	3,453 13		11					
—scrip.....				4	384 00					4	384 00	
Pre-emption payments.....	17	614 54		9	258 53		8	356 01				
Purchased homestead payments.....	49	2,363 52		31	3,833 99		18			22	850 47	
South African grants.....	39			61						37	31 25	
Searches, map sales, office fees, &c.....	117	47 60		154	78 85							
Applications for patent received.....	709			480			229					
Applications for inspection received.....	345			314			1					
Entries cancelled.....	532			629						97		
Sundries.....	3	1 60					3	1 60				
Dominion lands, total.....			28,683 00			22,993 80			7,737 28			2,048 02
<i>Timber, Grazing and Irrigation.</i>												
Bonus.....	1	1,400 00					1	1,400 00				
Ground rent.....	21	9,426 75		66	7,477 42			4,749 33		42	8,830 16	
Royalty on sales.....	22	21,245 73		31	30,073 97					9		
Timber permits.....	1,298	8,341 71		1,033	6,739 26		265	2,142 45		83	536 16	
Timber seizures.....	42	4,854 60		125	5,380 76					56		
Hay dues.....	170	533 95		226	461 35			72 60				
Grazing rentals—cash.....												
—scrip.....												
Irrigation fees.....												
Sundries.....												
Timber dues, &c., total.....			46,402 80			50,404 76			5,364 38			9,396 32

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SCHEDULE A.—DOMINION LANDS.

STATEMENT of the business transacted at the Prince Albert Dominion Lands and Crown Timber Agency for the Year ending March 31, 1911, and comparative statements for former periods, as shown below.

	WORK AND RECEIPTS FOR YEAR ENDING MARCH 31, 1911.			CORRESPONDING PERIOD FOR PREVIOUS YEAR.			INCREASE: A ² COMPARED WITH PREVIOUS YEAR.			DECREASE: A ³ COMPARED WITH PREVIOUS YEAR.		
	No.	Amount.	Totals.	No.	Amount.	Totals.	No.	Amount.	Totals.	No.	Amount.	Totals.
		\$ cts.	\$ cts.		\$ cts.	\$ cts.		\$ cts.	\$ cts.		\$ cts.	\$ cts.
<i>Mining Lands and Yukon Branch.</i>												
Mining fees.....	169	749 00		310	1,288 00					141	539 00	
Rental.....	3	993 70					3	993 70				
Royalty.....										3	300 00	
Assessment payments.....				3	300 00							
Coal permits.....												
Sundries.....												
M. L. and Y. Branch, total.....			1,742 70			1,588 00						839 00
<i>School Lands Branch.</i>												
General sales.....		40 00		2	76 00					1	36 00	
Timber permits.....	16	279 30		3	12 00		13	267 50				
Hay dues.....	119	268 00		190	345 85					31	77 35	
Grazing rentals.....	22	194 85		23	228 27					1	33 42	
Seizures.....	2	1,630 30					2	1,630 30				
Coal rental.....												
" royalty.....												
" permits.....												
Cultivation permits.....	3	46 00					3	46 00				
Sundries.....				2	17 75					2	17 75	
School lands, total.....			2,458 65			679 37			1,943 80			164 62
<i>Miscellaneous.</i>												
Seed grain and provision repayments.....	22	883 57		37	1,023 34					15	139 77	
Sundries.....												
Miscellaneous, total.....			883 57			1,023 34						139 77
Grand total.....			80,170 78			76,680 27			16,039 16			12,557 63

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SCHEDULE B.—Showing revenue from School Lands collected at Prince Albert Agency during fiscal year 1910-11.

Month.	Sales.	Grazing Rental.	Hay Permits.	Timber Permits.	Cultivation Permits.	Seizures.	Totals.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1910.							
April		32 00	73 30				105 30
May	40 00	18 15	51 10		33 00		142 25
June			20 00		13 00		33 00
July		5 90	80 20				86 10
August		19 05	42 40				61 45
September							
October				10 00			10 00
November				78 00			78 00
December		19 05					19 05
1911.							
January		50 80		55 50		56 50	162 80
February		12 30		53 25			65 55
March		37 60	1 00	82 75		1,573 80	1,695 15
Totals	40 00	194 85	268 00	279 50	46 00	1,630 30	2,458 65

No. 18.

REPORT OF THE AGENT AT RED DEER.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

RED DEER, ALBERTA, April 18, 1911.

J. W. GREENWAY, Esq.,

Commissioner of Dominion Lands,

Ottawa, Ont.

SIR,—I beg to submit my annual report for the fiscal year ending the 31st ultimo, and in doing so am pleased to say that the Red Deer district made unprecedented progress during the year.

The earlier part of last season was comparatively dry, our annual rains coming a little late, notwithstanding which fact grain crops throughout the district were satisfactory.

Considerable railway development took place during the past year, but 1911 promises to be phenomenal in railway construction throughout the district. Construction work on the Alberta Central and Canadian Northern railways west from Red Deer, which was carried on all winter, has given employment to a large number of settlers the winter through. These companies have paid good wages and have purchased all kinds of produce the farmers had to sell, which has made good times generally. Many new towns are springing up, and the older towns are growing rapidly, consequently there is a heavy demand for all kinds of skilled labour. The building of the railways to the west has given an impetus to settlement in that por-

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tion of the district, which formerly was neglected on account of lack of transportation facilities. Butter and cheese making, which is an important factor in the life of the farmer in this district, is steadily increasing, and the earnings of the factories have been above the calculations of the most optimistic.

The past winter was fine, although we had more continuous cold weather than usual. Cattle and horses have wintered well, and with little, if any, losses. At the present time fall wheat is in excellent condition, and the outlook for a good crop promising. Owing to recent heavy snow storms and cold weather, spring farming operations are somewhat retarded, but the moisture in the ground is amply sufficient, and as the weather now appears settled, seeding will be general throughout the district this week, and a much larger area will be sown to crop this season than last. The reputation of this district for mixed farming has been maintained during the past year, the export of cattle, butter and cheese far exceeding any previous year.

The farmers throughout the district are prosperous, contented and happy. The several sub-agents in this district have performed their duties satisfactorily, and are courteous and obliging to the inquiring public and incoming settler.

In all branches the work of this office is steadily increasing, as is shown by the following statement:—

Homestead entries.	2,031	\$20,315 00
Pre-emption fees.	372	3,720 00
Pre-emption interest.		2,490 55
Purchased homesteads.	191	1,910 00
Purchased homestead payments.		37,821 14
Improvements.	136	5,401 51
Land sales.	32	1,682 93
Searches.	153	84 70
		<hr/>
		\$73,425 83
Letters received.	24,777	
Letters written.	23,193	
Applications for patent.	1,550	
S.A.V.B. certificates.	14,790	acres
H. B. scrip.	2,159	acres

Your obedient servant,

W. H. COTTINGHAM,

Agent of Dominion Lands.

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No. 19.

REPORT OF THE AGENT AT REGINA.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

REGINA, SASKATCHEWAN, April 3, 1911.

J. W. GREENWAY, Esq.,

Commissioner of Dominion Lands,

Ottawa, Ont.

SIR,—I have the honour to submit my report for the fiscal year ending March 31, 1911.

Attached hereto is a statement of receipts of this office for the year.

The total receipts from Dominion lands are \$23,945.06, as compared to \$25,714.65 for the previous year. The total receipts for timber, grazing and irrigation are \$106.70, as compared with \$206 for the year ending March 31, 1910. School lands revenue for the year amounts to \$2,428.63, as against \$4,227.64. The seed grain collections for the year amount to \$1,728.64, as compared to \$2,714.44 for the previous year.

It should also be observed that the amount paid for salaries was \$6,292.22, as compared with \$10,475.53 for the year ending March 31, 1910.

There are very few desirable homesteads available for entry in this district, except those that are thrown open by cancellation from time to time. Owing to the increase in the price of land, however, there are a number of entries being made for lands that a few years ago were considered worthless.

The spring rush appears to have set in and we are daily receiving inquiries from a large number of intending settlers, as to the most desirable districts within which to locate. We are also receiving a large number of letters from the States, asking for information regarding the west.

During the year I have recommended ten hundred and thirty-four applications for patent, and this number will no doubt be exceeded this year, as nearly all those that obtained entries for odd-numbered sections in 1908, will make their applications this fall.

Conditions appear to be ideal, and I am satisfied that this will be the best year in the history of the west.

Your obedient servant,

J. R. GAYTON,

Agent of Dominion Lands.

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Patent Branch—

	No.	\$	cts.
Homestead fees.	494	4,330	00
Pre-emption fees.	19	190	00
Purchased homestead fees.	10	100	00
Improvements payments.	80	6,548	59
Land sales (cash).	45	8,590	41
Pre-emption payments.	16	411	48
Purchased homestead payments.	35	3,623	34
Searches.	516	151	24
Total revenue.		\$23,945	06
Timber, Grazing and Irrigation—			
Timber permits.	58	38	00
Hay permits.	22	68	70
Total revenue.		106	70
Mining Lands and Yukon Branch—			
Coal permits.	2	10	00
Total revenue.		10	00
School Lands Branch—			
General sales.	2	1,037	38
Timber permits.	12	22	00
Hay permits.	256	728	25
Grazing rentals.	63	641	00
Total revenue.		2,428	63
Miscellaneous—			
Seed grain and provision payments.	25	1,728	64
Total revenue.		1,728	64

No. 20.

REPORT OF THE AGENT AT SASKATOON.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

SASKATOON, SASKATCHEWAN, April 28, 1911.

J. W. GREENWAY, Esq.

Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to submit my report of this office for the fiscal year ending March 31, 1911.

The volume of business contained in the appended summary shows a splendid increase over the previous year in almost every branch of the work. I expect the ensuing year will be still better.

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The settlers taking up free land are of a superior class, those from the British Isles and the United States being as a rule able, financially, to start farming on a good scale, and also to increase their holdings by purchasing from surrounding owners.

Home-seekers are apparently not leaving a stone unturned in their efforts to secure land in this district, and delinquent homesteaders are, therefore, promptly looked after through the cancellation process.

The unprecedented advance in land values last spring gave an impetus to the already eager inquiry for free land, and with the unusual activity on the part of the railway companies to rush out extensions, the aspect for land seekers was never more bright.

There is still a large area of available homestead land in this district, most of which would be desirable for mixed farming. As this district is all within the pre-emption area, those who are now getting their patent for the first homestead are very glad of the opportunity to secure more land, even if not of the best class, at the rate of \$3 per acre; of course subject to the required duties.

The partial crop failure last season has taught the farmers that there must be better cultivation of the soil if they wish to insure a crop, and, therefore, a large percentage of the farmers did considerable ploughing and working on the land last fall. There was also a tremendous increase in new land brought under cultivation last year, which should show a corresponding increase in the production this season. The weather conditions to date have been ideal, and seeding is at present in full swing.

The present prices of grain and farm products in general appear to indicate that there is no limit to the possibilities.

Your obedient servant,

D. L. BETTSCHEN,

Agent of Dominion Lands.

STATEMENT of business transacted at the Saskatoon Dominion Lands Agency, for the year ending March 31, 1911.

Patent Branch—

	Number.	Revenue.
Homestead entries.	4,177	\$41,775 00
Pre-emption entries.	1,202	12,010 00
Purchased homestead entries.	578	5,770 00
Improvements.	228	12,152 86
Land sales (cash).	42	3,721 69
S.A.V.B. land scrip (55,840 acres).	175	
N.W.H.B. land scrip (4,880 acres).	31	
Pre-emption payments.	668	16,699 24
Purchased homestead payments.	953	118,642 59
Searches.	991	245 50
		<hr/>
		\$212,016 88

Timber, Grazing and Irrigation—

Timber permits.	79	66 50
Hay permits.	171	439 60
Sundries.	22 30
		<hr/>
		\$528 40

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Mining Lands and Yukon Branch—

Mining fees.	5	\$ 120 00
Rental.	2	120 00
		<hr/>
		\$240 00

School Lands Branch—

Hay permits.	153	356 70
Grazing rentals.	30	430 88
Cultivation permits.	2	61 40
Sundries. . . . .	..	1 50
		<hr/>
		\$850 48

Miscellaneous—

Seed grain collections.	16	698 46
		<hr/>
		\$698 46

Total revenue.		\$214,334 22
Letters received.		47,655
Letters written.		60,798
Applications for inspection received.		1,757
Applications for patent received.		2,099
Entries cancelled.		2,816

No. 21.

REPORT OF THE AGENT AT SWIFT CURRENT.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

SWIFT CURRENT, SASKATCHEWAN, April 8, 1911.

J. W. GREENWAY, Esq.,

Commissioner of Dominion Lands,

Ottawa, Ont.

SIR,—I have the honour to submit for your consideration my report of this office for the fiscal year ending March 31, 1911. The office was opened April 4, 1910, representing the newly formed Swift Current Dominion lands district, consisting of lands situate in townships one to twenty-five, ranges eleven to twenty-four, inclusive, west of the 3rd meridian, which same were formerly included in the Moosejaw district.

The settler that has, during the past year, come to this district is of excellent type, the majority being from Great Britain and the United States and, for the greater part, fairly well off financially. From the knowledge of farming and general zeal displayed the settlers of the district should, ere long, be in very comfortable circumstances. One thing which is very noticeable is their desire for good buildings, especially barns. It is on a rare occasion that poor accommodation for horses

2 GEORGE V., A. 1912

and stock is seen. The dwellings also are more solid and commodious than is usually the case with homesteaders. This fact, I think, is accounted for by the greater number of settlers being married and possessing families of no mean proportions.

The crop of 1910 was comparatively small, being due, for the most part, to excessive dryness, frost, and in certain sections, hail. Many of the newer settlers were ill prepared for such drawbacks and consequently have had a somewhat difficult task to exist during the past severe winter. The protection, until April 1, afforded by the government was greatly appreciated and very few failed to take advantage of the same.

A large number of settlers have availed themselves of the offer of the department to supply seed grain to the needy, and as many as 20 cars have been distributed at this point during the past month. A few of the worst off families have also been supplied with a stock of provisions to carry them over the hard winter months. Payments on seed grain of previous issues have been made, and in all instances the settler has remarked upon the quality of the seed being all that could be desired, mentioning further, that the distribution of seed grain, when needed, had been of the greatest possible assistance.

The Canadian Pacific Railway Company is, during the coming summer, to construct somewhere in the vicinity of 80 miles of road bed—35 miles southeasterly, and 45 miles northwesterly—from Swift Current. This work will create a big demand for labour, and many of the settlers will be able to earn money by such to carry out the improvement of their lands. These two stretches of railroad will, when completed, be of great benefit to the farmers through whose sections of country they run, for it will mean quick transportation for their products to market, instead of a long haul by team and trail.

Although the prevailing weather is far from mild, seeding has in a few cases been undertaken but, generally, every preparation is being made to seed on the first favourable day. If conditions tend to favour the farmer this year the crop should be abundant, for the acreage under cultivation is greatly increased over that of last year.

The number of applications for patent has been very large and, for the most part, the evidence contained in the same clearly shows that the older settlers have done their duties in a very satisfactory manner and are anxious to have their grants established.

The correspondence during the year has been heavy. The demand for literature, plans, maps and general information was very noticeable. Inquiries have been received from all directions and promptly answered. The foregoing tends to show the great interest being taken in the western portion of this province.

All the office work has been kept up-to-date; the staff, including the homestead inspectors and sub-agents, have worked cheerfully and well. No complaints have been received of ill attention or lack of courtesy on the part of any one of the staff.

Accompanying this is a statement of the work accomplished at this office during the twelve months ending March 31, 1911.

Your obedient servant,

E. B. R. PRAGNELL,

Agent of Dominion Lands.

SESSIONAL PAPER No. 25

STATEMENT of the business transacted at the Swift Current Dominion Lands and Crown Timber Agency for the month of March, 1911, and comparative statements for former periods, as shown below:—

	WORK AND RECEIPTS OF MONTH OF MARCH, 1911.			FOR 12 MONTHS ENDING MARCH 31, 1911.		
	No.	Amount.	Totals.	No.	Amount.	Totals.
<i>Patent Branch.</i>		\$ cts.	\$ cts.		\$ cts.	\$ cts.
Homestead fees.....	329	3,250 00		5,564	55,630 00	
Pre-emption fees.....	183	1,830 00		3,308	33,060 00	
Purchased homestead fees.....	17	170 00		214	2,140 00	
Improvements.....	23	1,421 00		203	10,669 50	
Land sales—cash.....	2	544 15		81	15,681 92	
" "—scrip.....	19		4,639 00	362		108,729 93
	2		200 00	4		520 00
Pre-emption payments.....	168	4,095 42		1,717	42,173 12	
Purchase 1 homestead payments.....	26	3,323 65		428	41,598 34	
Townsite sales.....						
Searches, map sales, office fees, &c.....	48	12 00		239	69 00	
Applications for patent received.....	123			1,053		
Applications for inspection received.....	157			1,787		
Entries cancelled.....	127			3,405		
Sundries.....						
Dominion lands, total.....			14,676 22			202,071 88
<i>Timber, Grazing and Irrigation.</i>						
Bonus.....						
Ground rent.....						
Royalty on sales.....						
Timber permits.....	29	7 25		978	253 60	
Timber seizures.....				1	5 20	
Hay permits.....				245	620 40	
Grazing rentals—cash.....	16	110 32		88	1,305 21	
" "—scrip.....						
Irrigation fees.....						
Sundries.....						
Timber dues, &c., total.....			117 57			2,184 41
<i>Mining Lands and Yukon Branch.</i>						
Mining fees.....				11	55 00	
Rental.....				5	60 00	
Royalty.....				3	47 85	
Assessment payments.....						
Coal permits.....						
Sundries.....						
M. L. and Y. Br., total.....						162 85
<i>School Lands Branch.</i>						
General sales.....						
Timber permits.....				1	1 25	
Hay permits.....				141	368 58	
Grazing rentals.....	5	89 30		33	609 67	
Mining fees.....						
Coal rental.....						
Coal royalty.....						
Coal permits.....						
Cultivation permits.....						
Sundries.....						
School lands, total.....			89 30			979 50

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STATEMENT of the business transacted at the Swift Current Dominion Lands and Crown Timber Agency, &c.—*Continued.*

	WORK AND RECEIPTS FOR MONTH OF MARCH, 1911.			FOR 12 MONTH ENDING MARCH 31, 1911.		
	No.	Amount.	Totals.	No.	Amount.	Totals.
<i>Miscellaneous.</i>		\$ cts.	8 cts.		8 cts.	8 cts.
Seed grain and provision repayments.....	4	163 25		43	2,404 40	
Sundries.....						
Miscellaneous, total.....			163 25			2,404 40
Grand total.....			15,046 34			207,863 04
<i>General.</i>						
Letters received.....	2,951			38,557		
Letters written.....	2,994			39,932		
Number of staff and salaries.....	14	952 81		14	11,028 42	
Disbursements.....		155 27			2,772 34	

No. 22.

REPORT OF THE AGENT AT WINNIPEG.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

WINNIPEG, MANITOBA, May 4, 1911.

J. W. GREENWAY, Esq.,

Commissioner of Dominion Lands,

Ottawa, Ont.

SIR,—I have the honour to submit herewith the report in connection with the Dominion Lands Office, Winnipeg.

At the time I assumed charge of this office in December last, the Crown Timber Branch was made a separate department, with Mr. A. Freeman as agent.

The summary of work attached refers only to Dominion Lands, the Crown Timber report being made by the agent of that branch.

In comparing the work of the present year with that of the previous one, I find a considerable increase in the work of the Lands Office. This is no doubt due to the large increase in immigration and the opening up of new townships for home-steading purposes, and they are rapidly being taken up by a good class of settlers.

I find that this is a very important office; situated as this city is there are a large number of people who come to this office seeking information, not only regarding Manitoba, but as to the country farther west. They are given all the information available, and furnished with maps and literature. This also applies to all inquiries which are received by mail; the latter are promptly answered.

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At the present time prospects are very bright for a good crop, and there is a feeling of contentment throughout the country.

Appended is a statement of the work performed during the fiscal year.

Your obedient servant,

L. RANKIN,

Agent of Dominion Lands.

Lands Branch—

Homestead entries..	1,907	\$19,890 00	
Improvements..	135	4,008 77	
Land sales—cash..	52	6,679 54	
Land sales—scrip..	1	160 00	
Townsite sales..	22	675 00	
Searches, maps, &c..	588	352 17	
Seed grain..	37	2,193 96	
			\$33,959 44

Mines Branch—

Mining fees..	77	290 00	
Royalty quarries..	69	1,308 50	
Assessment payments..	3	300 00	
Coal permits..	1	100 00	
Sundries..	15	35 50	
			\$2,034 00

\$35,993 44

Applications for patents received..	357
Applications for inspections received..	570
Entries cancelled..	745
Letters received..	21,726
Letters written..	21,126

No. 23.

REPORT OF THE AGENT AT YORKTON.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

YORKTON, SASKATCHEWAN, May 9, 1911.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I beg to submit for your consideration the report of the transactions of this office for the year ending March 31, last.

There is a slight increase in the number of homestead entries and revenue. Correspondence in connection with applications for patent has been heavy, probably caused by regulations changed from time to time and rigidly enforced.

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Whilst drought prevailed last summer over a considerable area of western Canada, this locality enjoyed the good fortune of a rainfall, over the average precipitation during June, July and August, which produced a wonderful growth of oats, the staple crop of the district. Prices were low until after Christmas, when a demand for oats came from Vancouver, and this brought values to a remunerative figure. Farmers in this district are fast becoming wealthy, and several make it a practice to spend the winter in California or British Columbia, leaving their farms after the fall ploughing is at an end and returning ready for seeding. Owing to scarcity of labour and costly horses, gas tractors and gasoline engines are coming into common use.

The two largest towns in the agency, Yorkton and Melville, are rapidly acquiring all the advantages of modern civilization, waterworks, sewerage, and electric light and power.

The following is a summary of the work transacted:—

Homestead entries..	1,314
Timber permits..	410
Hay permits (Dominion Lands)..	100
Hay permits (School Lands)..	148
Letters written..	24,745
Letters received..	23,154
Applications for patent..	1,722
Entries cancelled..	533
Applications for inspection	577

Your obedient servant,

JAS. E. PEAKER,

Agent of Dominion Lands.

No. 24.

REPORT OF THE MINING LANDS AND YUKON BRANCH.

DEPARTMENT OF THE INTERIOR,

OTTAWA, June 1, 1911.

W. W. CORY, Esq., C.M.G.,

Deputy Minister of the Interior,

Ottawa.

SIR,—I have the honour to submit herewith the report of the Mining Lands and Yukon Branch of the Department of the Interior for the fiscal year which ended on March 31, 1911.

The total revenue of this branch derived from all sources during the fiscal year amounts to \$1,018,091.63, being an increase of \$128,961.48, over the previous year, and the greatest single year's revenue since the formation of the branch. The statements lettered 'A' and 'B,' showing in different forms how this amount is made up, will be found at the end of the report. Statement lettered 'A' shows the total revenue for each month, and statement lettered 'B' shows the revenue collected at each agency including the Yukon Territory.

The revenue for the Yukon Territory, which amounts to \$208,758.06, is shown separately in statement lettered 'C.'

The reports and statements for the fiscal year from the Commissioner, the Gold Commissioner, the Acting Comptroller, the Crown Timber and Land Agent and the Director of Surveys at Dawson, and the Assistant Gold Commissioner at Whitehorse will be found under Part VI of the general report.

TIMBER IN THE YUKON TERRITORY.

The total amount of dues collected on account of timber in the Yukon Territory during the fiscal year was \$13,167.34. During the year 118 permits were issued, under the authority of which 282,602 feet B.M. of timber, and 1,929½ cords of wood were cut, the dues on which amounted to \$6,076.73.

There are in existence 108 timber berths held under license to cut timber within the territory, covering an area of 261.86 square miles, which licenses were granted prior to May 10, 1906, on which date the regulations governing the granting of licenses to cut such timber in the territory were rescinded, and regulations for the issue of permits to cut timber substituted therefor. Only one sawmill is now in operation within the territory.

According to returns received in the department the number of feet, board measure, of lumber manufactured during the year was 1,092,614, and the quantity sold 717,614 feet. The number of cords of wood cut during the year was 8,514, and the number sold 4,775. This does not include the very large amount of timber and cordwood cut free of dues for mining purposes.

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MINING LANDS OTHER THAN COAL.

During the fiscal year 111 entries for quartz mining claims were granted by the Agents of Dominion Lands in Manitoba, Saskatchewan and Alberta.

In the Yukon Territory 40,174 placer mining claims, 10,886 quartz mining claims, and 74,623 renewals and relocations were recorded up to March 31, 1911.

According to the returns received during the fiscal year 335 entries for placer mining claims, 535 entries for quartz mining claims, and 5,025 renewals and relocations were recorded during that period. The revenue collected from these sources and from fees for registering documents in connection with mining operations was \$71,661.60.

ROYALTY ON GOLD MINED IN THE YUKON TERRITORY.

The total amount collected up to March 31, 1911, for royalty on the gross output of placer mining claims in the Yukon Territory, after deducting the exemption at one time allowed under the regulations, was \$3,897,659.44, of which amount \$103,139.60 was collected during the last fiscal year. For the purpose of estimating this royalty, the gold is valued at \$15 an ounce, which is much below its real value.

The actual value of gold produced from placer mining operations in the Yukon Territory up to March 31, last, might be safely placed at \$114,905.684.

The following statement shows the agencies at which the royalty was collected and the amount collected at each during the year:—

Dawson	\$102,239 18
Whitehorse	900 42

The statement lettered 'E' at the end of this report shows the total gold production, the total subject to royalty and the total royalty collected for each fiscal year from May 1, 1898, to March 31, 1911.

DREDGING.

Fifty-one leases to dredge for minerals, other than coal, in the submerged beds of rivers in the Yukon Territory are now in force, covering a total frontage of 284 miles. The total revenue derived from this source up to March 31, 1911, amounts to \$184,820.35, of which amount \$1,929.63 was collected during the fiscal year.

These leases are confined to the Yukon, Stewart, McQuesten, Fortymile, Big Salmon, Klondike, Hootalinqua and Mayo rivers.

There are in operation in the Yukon Territory twelve (12) dredges, nearly all of which have an indicated capacity of 3,500 cubic yards in twenty-four (24) hours. The Canadian Klondike Mining Company have installed on their property situated on the Klondike river, what is reported to be the largest gold saving dredge operating in the world. Its length is 130 feet, and its breadth 55 feet, with a depth throughout of 12 feet. It is equipped with a digging ladder supporting an endless chain of 68 buckets, each having a capacity of 16 cubic feet, the total weight of which is 250 tons. The steel spuds which hold the dredge in place are 65 feet in length, and weigh 32 tons each. The total weight of the dredge is 1,660 tons, and its indicated capacity about 15,000 cubic yards in 24 hours. The great size and weight of many pieces of the machinery installed in this dredge necessitated special facilities for moving it from tide water at Skagway to a point about six miles up the Klondike river from Dawson, and shows the great development which has taken place in transportation facilities in the Yukon Territory.

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Twenty-four leases to dredge for minerals in the beds of rivers in the provinces of Alberta and Saskatchewan are in force, covering a total frontage of 114.51 miles. Of these leases 20 are in the province of Alberta, and include 99 miles, one is in the province of Saskatchewan, and includes five miles in all and three are in the Northwest Territories embracing a frontage of 10.57 miles. The total revenue derived from this source up to March 31, 1911, amounts to \$43,973.05, of which amount \$2,077.50 was collected during the fiscal year.

HYDRAULIC MINING.

The regulations for the disposal of mining locations in the Yukon Territory to be worked by the hydraulic mining process were withdrawn by Order in Council, dated February 2, 1904, such withdrawal, however, not to affect leases already granted. Eleven hydraulic mining leases are still in force, covering a total frontage of 30.98 miles. These leaseholds are all situated in the Yukon Territory. Since the regulations were first established in December, 1898, forty-seven hydraulic mining leases have been issued, all of which have now been cancelled with the exception of the above number. Under the grouping provisions of the Placer Mining Act, operators can now acquire and group for operation a sufficient area to warrant the installation of efficient hydraulic machinery.

HOMESTEAD IN YUKON.

Thirty-five homestead entries are now in force embracing a total area of 5,247.09 acres.

PETROLEUM.

By an Order in Council dated March 11, 1910, the regulations governing the reservation and sale of petroleum and natural gas rights the property of the Crown were rescinded, and regulations for the leasing of such rights were substituted therefor, and came into effect on May 2, 1910. These regulations provide for the issue of a lease to an applicant of the petroleum and natural gas rights under an area not exceeding 1,920 acres of adjoining lands. Personal application for a lease must be made to the Agent of Dominion Lands for the district, or to a sub-agent, and payment of the rental for the first year must be made within thirty days from the date of filing. If the tract applied for is situated in unsurveyed territory, it must be staked out by the applicant in person. The term of the lease is twenty-one (21) years, renewable for a further term of like duration, the rental for the first year being twenty-five (25c.) cents an acre, and for each subsequent year, fifty (50c.) cents an acre. The lessee must have satisfactory machinery on the land within one year from the date of the lease, and he must commence boring operations within fifteen months from such date. The expenditure incurred in boring operations during the second and third years may, under certain circumstances, be deducted from the amount of the rental payable. No royalty will be charged on the sales of the petroleum up to January 1, 1930.

Under the provisions of these regulations, 204 petroleum and natural gas leases have been issued since May 2, 1910, embracing a total area of 162,217.46 acres distributed as follows: In the province of Alberta 203 leases, including 160,297.46 acres, and in the province of Saskatchewan one lease, including 1,920 acres. The total revenue derived from petroleum lands during the year amounts to \$70,028.53.

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During the year nine reservations have been renewed under the provisions of the late regulations to enable the several applicants to conduct petroleum prospecting operations on the tracts reserved for them. These reservations embrace a total approximate area of 14,120 acres, and evidence has been filed in the department to show that prospecting outfits have been installed, and that operations are being actively carried on upon these several tracts.

QUARRYING.

By an Order in Council dated May 13, 1910, regulations for the leasing and administration of Dominion Lands containing limestone, granite, slate, marble, gypsum, marl, gravel, sand, or any building stone, were approved. These regulations came into effect on June 15, 1910. The maximum area which may be leased to an applicant is 40 acres, the term of the lease being twenty-one (21) years, renewable for a further term of twenty-one (21) years at an annual rental of one (\$1) dollar an acre. Personal application for a lease must be made to the Agent of Dominion Lands for the district, or to a sub-agent, and if the land is unsurveyed, personal staking is necessary.

Under the provisions of these regulations 93 leases have been issued since June 15, 1910, distributed as follows:—

In Manitoba—36 leases containing an area of 1,199.32 acres.

In Saskatchewan—1 lease containing an area of 30.10 acres.

In Alberta—18 leases containing an area of 641 acres.

In Northwest Territories—15 leases containing an area of 600 acres.

In British Columbia—23 leases containing an area of 852.85 acres.

Eight leases have been issued for stone quarrying purposes in the Rocky Mountains Park of Canada, comprising a total area of 2,477.62 acres.

TAR-SANDS.

By an Order in Council dated February 14, 1910, regulations were approved for the disposal of tar-sand rights, the property of the Crown, in that portion of the province of Alberta lying north of township 80, and between the 4th and 5th initial meridians. These regulations came into force on March 19, 1910. The maximum area which may be leased to an applicant is 1,920 acres, the term of the lease being twenty-one (21) years, renewable for a further term of like duration, and the rental fifty (50c.) cents an acre per annum. Personal application for a lease must be made to the Agent of Dominion Lands for the district, or to a sub-agent, and if the tract applied for has not been surveyed, the applicant must stake out the tract in person. The lessee, during each of the first three years of the term of the lease, shall expend not less than the sum of one thousand (\$1,000) dollars in the development of his leasehold, and in the installation of machinery for its operation.

Under the provisions of these regulations nine leases have been issued during the year, comprising a total area of 17,040 acres.

WATER RIGHTS.

There are now in force in the Yukon Territory 363 grants to divert water for mining purposes, aggregating a total of 144,852 miner's inches. During the fiscal year eight water rights were issued, comprising 6,000 miner's inches.

Ten leases have been issued to divert water for power purposes in the territory,

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including in all 55,200 miner's inches. The works in connection with two of these grants have been completed, and about 5,000 horse power generated. Two of the grants have lapsed, and the works in connection with the remaining six are under construction.

COAL MINING LANDS.

The total amount collected during the year on account of coal mining lands sold under the provisions of the late regulations was \$191,257.23, of which amount \$175,197.37 was on account of coal lands in the province of Alberta, \$15,513.59 on account of such lands in the province of Saskatchewan, and \$546.27 in connection with coal lands in the Yukon Territory. The total amount collected on account of the sale of coal mining lands up to March 31, 1911, was \$2,072,066.72.

The statement lettered 'D' at the end of this report shows the revenue derived from the sale of coal lands for each fiscal year since 1897.

COAL LEASES.

The total number of coal mining leases in force at the close of the fiscal year was 521, including a total area of 267,309.56 acres, distributed as follows:—

In the province of Alberta:—

(a) Within the Rocky Mountains Park of Canada, 69 leases, embracing a total area of 29,559.50 acres.

(b) Outside the park, 412 leases, embracing a total area of 233,713.69 acres.

In the province of Saskatchewan 34 leases, comprising an area of 1,796.82 acres.

The total number of leases of coal mining rights issued during the year was 249, comprising an area of 171,011.19 acres. The total revenue received during the year for rental of coal mining rights was \$292,508.39.

The following is a statement showing the revenue collected in the western provinces and in the Yukon Territory on account of the sale of coal lands during the fiscal year, under the provisions of the late regulations:—

Province of Alberta.. . . .	\$175,197 37
Province of Saskatchewan.. . . .	15,513 59
Yukon Territory.. . . .	546 27
Total.. . . .	\$191,257 23

The revenue derived from leases to mine coal within the Rocky Mountains Park during the fiscal year amounted to \$34,554.07, and was made up as follows:—

Rental.. . . .	\$25,901 57
Royalty on coal mined.. . . .	8,652 50

The total amount of rental collected on account of such lands up to March 31, last, was \$62,980.63, and the total amount of royalty collected up to the same date was \$34,218.70.

ROYALTY ON COAL.

The late regulations governing the sale of coal mining lands provided for the payment of a royalty of ten cents per ton of 2,000 pounds on the output of the mine.

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This regulation came into force on April 6, 1901, after which date all sales of coal mining rights were made subject to such regulation.

Under the regulations governing the issue of leases to mine coal, the royalty is fixed at 5 cents per ton of 2,000 pounds, on the merchantable output of the mine.

The following statement shows the amount collected on account of royalty during each year since the regulations came into effect:—

1901-2.	Nil
1902-3.	Nil
1903-4.	\$ 59 30
1904-5.	2,979 70
1905-6.	2,996 18
1906-7.	4,456 80
1907-8.	9,169 35
1908-9.	6,052 23
1909-10.	155,371 86
1910-11.	221,246 12

The total revenue derived from coal mining lands on account of purchase price, rental and royalty, during the fiscal year, amounted to \$716,278.23, being an increase of \$66,968.69 over the previous year.

The following is a statement of the office work performed during the year:—

Letters received and recorded.	14,141
Letters sent.	21,948
Pages of memoranda and schedule.	10,814
Plans and sketches prepared.	1,161
Accounts kept posted.	8,603
Accounts rendered.	9,813
Assignments accepted and registered.	230
Returns examined and posted.	1,736
Receipts issued.	526
Refunds examined and prepared.	509
Applications for coal locations received, covering an approximate area of 590,470 acres.	583
New entries and renewals for mining locations granted in the western provinces and territories, not including the Yukon.	321
Applications for stone, gypsum and clay.	165
Applications for tar, asphalt and petroleum.	521
Applications for quartz claims in Alberta, Saskatchewan and Manitoba.	38
Applications for iron claims.	4
Applications for placer mining claims in Alberta and Saskatchewan.	187
Applications for dredging leases.	56
Applications for homestead entry in the Yukon Territory.	12
Homestead entries granted in the Yukon Territory.	35
Placer mining grants, renewals and relocations in the Yukon Territory.	5,360
Quartz mining locations granted in Yukon Territory.	535
Applications to dredge for sand and gravel.	19
Requisitions for patent prepared.	300

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Applications to purchase or lease lands in the Yukon Territory.. . . .	40
Applications for water frontage.. . . .	3
Agricultural leases in force in the Yukon Territory, comprising an area of 120.61 acres	15
Leases for water frontage issued.. . . .	3
Water front leases in existence.. . . .	23
Gold dredging leases issued.. . . .	72
Coal mining leases issued.. . . .	249
Timber licenses prepared.. . . .	108
Stone quarrying leases issued.. . . .	101
Stone quarrying leases in the Rocky Mountains Park of Canada issued, comprising a total area of 2,477.62 acres.. . . .	8
Applications for coal prospecting locations received, covering an approximate area of 33,920 acres.. . . .	14
Prospecting reservations made.. . . .	45

I have the honour to be, sir,

Your obedient servant,

H. H. ROWATT,

Chief of Branch and Secretary of the Yukon.

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REVENUE OF DOMINION LANDS INCLUDING THE YUKON TERRITORY.

A.—STATEMENT of Receipts on account of Coal and Minerals in the Provinces and Territories, also Timber, Hay, Coal, Hydraulic Mining, Dredging, Royalty on Gold, Mining Fees, Rental of Agricultural Lands, Water Power and Water Fronts, Survey Fees and Sale of Dominion Lands in the Yukon, for the Fiscal Year 1910 and 1911.

Months.	Quartz Acreage Sales.	Dominion Lands Sales.	Coal Sales.		Coal Mining.		Coal Royalty.		Coal Rental.		Rental, Yukon.		Timber Dues, Yukon.		Mining Fees.		Hydraulic Leases, N. W. T.		Dredging Leases, Yukon.		Gold Export Tax.
			\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	
1910.																					
April.....	329 60	194 12	5,156 33	976 19	19,449 07	9,279 34	1,990 00	1,022 25	3,763 00	56 37	100 00	767 12	28 78								28 78
May.....	56 65		39,030 41	2,525 00	23,073 84	6,241 07	5,080 55	1,796 61	4,720 00				16 44								16 44
June.....		115 00	31,408 43	630 25	10,079 85	11,117 16		1,404 05	5,826 10			15 94	20,362 92								20,362 92
July.....	176 80	188 37	9,441 83	1,195 00	18,786 74	64,558 36	36 49	2,053 66	5,523 00				14,228 35								14,228 35
August.....		50 00	28,061 48	1,490 00	9,095 50	11,322 09	136 63	783 37	9,335 50	507 00			17,877 41								17,877 41
September.....	14 82	293 37	4,020 49	840 00	8,962 46	12,522 36	262 26	1,970 24	10,527 50	73 72			21,526 68								21,526 68
October.....	394 11	327 02	3,225 95	480 05	36,021 13	41,193 17	327 60	1,220 77	6,723 00	2,294 91			19,388 59								19,388 59
November.....	108 72	160 29	68,755 41	1,350 00	16,994 53	36,005 93	10 00	2,324 56	4,561 50	2,269 09			8,197 15								8,197 15
December.....	113 16	114 80	2,494 36	390 00	22,819 45	13,155 14	100 00	493 75	3,718 00				1,344 85								1,344 85
1911.																					
January.....			5,145 03	390 00	22,568 80	39,736 50	1,133 32	159 08	10,677 50	398 91	15 00	52 22	28 65								28 65
February.....	81	11 06	1,186 33	485 00	22,462 82	26,713 36	479 84	283 00	3,133 00	500 00	1,147 50	200 00	163 37								163 37
March.....	189 39	120 99	2,270 98	675 00	10,121 54	29,697 82	11 25	605 00	3,133 50			30 07	5 00								5 00
	1,334 09	1,415 02	191,257 23	11,266 49	221,246 12	292,508 39	9,567 98	13,167 34	71,601 60	6,127 00	2,077 50	1,929 68	103,168 19								103,168 19

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REVENUE OF DOMINION LANDS INCLUDING THE YUKON TERRITORY.

A.—STATEMENT OF Receipts on account of Coal and Minerals in the Provinces and Territories, also Timber, Hay, Coal, Hydraulic Mining, Dredging, Royalty on Gold, Mining Fees, Rental of Agricultural Lands, Water Power and Water Fronts, Survey Fees and Sale of Dominion Lands in the Yukon, &c.—*Concluded.*

Months.	Fire Certificates.	Stone Quarry.	Registration Fees.	Homestead Fees.	Hay, Yukon.	Water Power, Yukon.	Tar, Sands.	Sand, Gravel, and	Petroleum.	Rental Western Provinces.	Miscellaneous.	Gypsum.	Patent Fees.	Improvements.	Millsite, Western Provinces.	Transfer Fees, Yukon.	Amount.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1910.																	
April.....	1 50	284 54	33 00	10 00	72 00	.....	5 00	150 00	.....	128 88	.....	.....	.....	271 85	.....	.....	43,570 00
May.....	1 00	.....	12 00	10 00	72 00	.....	1,275 50	50 00	20 00	.....	5 00	373 20	.....	.....	.....	.....	73,062 40
June.....	27 50	419 00	72 00	10 00	46 00	.....	2,883 00	40 00	1,490 00	.....	2 18	.....	.....	.....	.....	.....	82,998 90
July.....	15 00	244 32	35 00	50 00	46 00	.....	1,940 00	283 00	940 00	.....	.....	.....	.....	.....	.....	.....	121,121 19
August.....	479 50	479 50	63 50	10 00	.....	50 00	3,890 00	271 50	3,647 50	.....	10 00	40 00	10 00	.....	.....	.....	83,502 50
September.....	33 50	285 72	40 00	.....	.....	.....	80 65	31 50	169 00	.....	45 00	95 00	.....	.....	.....	.....	69,142 98
October.....	31 00	775 19	8 00	20 00	.....	.....	965 00	.....	2,008 85	.....	.....	.....	.....	.....	.....	.....	114,114 21
November.....	16 00	1,494 20	2 50	.....	.....	.....	20 00	92 50	27,336 30	.....	.....	.....	.....	.....	.....	.....	145,182 90
December.....	3 00	690 32	7 50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	72,876 30
1911.																	
January.....	3 50	384 90	15 00	.....	.....	1,000 00	.....	12 00	2,931 75	.....	10 00	45 00	.....	.....	.....	.....	84,637 34
February.....	3 50	419 33	9 00	.....	.....	.....	.....	1 00	10,035 64	.....	.....	.....	.....	.....	.....	.....	67,236 76
March.....	2 00	626 92	15 00	10 00	.....	750 00	.....	50 00	21,348 80	.....	.....	40 00	.....	.....	50 00	2 00	60,646 06
	152 50	5,724 71	318 50	120 00	164 00	1,800 00	11,021 15	862 50	70,098 53	128 88	72 18	638 20	10 00	271 85	50 00	2 00	1,018,091 63

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DOMINION LANDS

B.—STATEMENT showing the Total Amount of Revenue collected at each Agency,

Revenue received at Head Office on account of the sale of coal lands in the Western Provinces,

Agency.	Quartz Acreage Sales.	Dominion Lands Sales.	Coal Sales.	Coal Mining.	Coal Royalty.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Battleford.....				105 00	
Brandon.....				115 00	8,652 50
Banff.....					1,253 00
Calgary.....			76,895 87	1,365 00	
Dauphin.....					
Edmonton.....			17,460 70	1,260 00	4,103 40
Estevan.....			15,513 59	25 00	1,897 14
Kamloops.....				103 00	
Lethbridge.....			62,271 19	2,825 00	1,969 55
Moosejaw.....				65 00	54 35
Medicine Hat.....				4 0 00	150 20
New Westminster.....				165 00	
Peace River.....				5 00	
Prince Albert.....				30 00	
Red Deer.....			18,569 61	595 00	1,127 80
Regina.....				10 00	
Saskatoon.....				115 00	
Swift Current.....				55 00	47 85
Winnipeg.....				100 00	
Ottawa.....		114 80		3,831 49	201,875 33
Dawson, Gold Commissioner's Office.....					
Sixtymile, Mining Recorder's Office.....					
Duncan, Mining Recorder's Office.....					
Whitehorse, Assistant Gold Commissioner's Office.....					
Kluane, Mining Recorder's Office.....					
Conrad, Mining Recorder's Office.....					
Dawson, Royalty Collector's Office.....					
Dawson, Crown Timber Office.....					
Whitehorse, Crown Timber Office.....					
Dawson, Comptroller's Office.....					
Whitehorse, Royalty Collector's Office.....					
Whitehorse, Comptroller's Office.....					
Dawson, Dominion Lands Office.....		61 35	546 27		125 00
Dawson, Mining Recorder's Office.....	671 28				
Whitehorse, Dominion Lands Office.....		1,238 87		15 00	
Whitehorse, Mining Recorder's Office.....	495 06				
Conrad, Mining Recorder's Office.....	167 75				
	1,334 09	1,415 02	191,257 23	11,266 49	221,246 12

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REVENUE.

including the Yukon Territory, for the Fiscal Year ending March 31, 1911.

is, in the statement, credited to the several Agencies in which the lands are situated.

Coal Rental.	Rental, Yukon.	Timber Dues, Yukon.	Mining Fees.	Hydraulic Leases.	Dredging Leases N. W. T.	Dredging Leases Yukon.	Gold Export Tax.	Free Certifi- cates Export of Gold.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
			100 00					
25,786 57			5 00					
21,544 87			290 00					
			122 50					
98,390 70			732 50					
435 18			2 50					
41,340 58			902 50					
950 20								
520 00			5 00					
2,003 40								
			600 00					
1,879 90			22 00					
80 00								
80 00								
			612 50					
98,481 88	1 00			4,427 41	2,077 50	1,584 14		
			55,516 10	1,699 59		345 54		
			2,388 00					
			4,066 50					
			3,595 50					
			1,873 50					
			827 50				102,239 18	
		12,608 84						
		558 50						126 00
							929 01	
								26 50
95 11	6,774 48							
320 00	2,792 50							
292,508 30	9,567 98	13,167 34	71,661 60	6,127 00	2,077 50	1,929 68	103,168 19	152 50

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DOMINION LANDS

B.—STATEMENT showing the Total Amount of Revenue Collected

Agency.	Stone Quarry.	Registra- tion Fees.	Home- stead Fees.	Hay, Yukon.	Water Power, Yukon.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Battleford.....					
Brandon.....					
Banff.....	486 69				
Calgary.....		97 50			
Dauphin.....	957 00				
Edmonton.....	200 00	134 00			
Estevan.....					
Kamloops.....	308 10				
Lethbridge.....	742 00				
Moosejaw.....					
Medicine Hat.....					
New Westminster.....	1,611 30				
Peace River.....					
Prince Albert.....	33 70	64 00			
Red Deer.....					
Regina.....					
Saskatoon.....					
Swift Current.....					
Winnipeg.....	1,006 50	5 00			
Ottawa.....	379 42				1,000 00
Dawson, Gold Commissioner's Office.....					800 00
Sixtymile, Mining Recorder's Office.....					
Duncan, Mining Recorder's Office.....					
Whitehorse, Assistant Gold Commissioner's Office.....					
Khane, Mining Recorder's Office.....					
Conrad, Mining Recorder's Office.....					
Dawson, Royalty Collector's Office.....				164 00	
Dawson, Crown Timber Office.....					
Whitehorse, Crown Timber Office.....					
Dawson, Comptroller's Office.....					
Whitehorse, Royalty Collector's Office.....					
Whitehorse, Comptroller's Office.....					
Dawson, Dominion Lands Office.....		14 00	90 00		
Dawson, Mining Recorder's Office.....					
Whitehorse, Dominion Lands Office.....		4 00	30 00		
Whitehorse, Mining Recorder's Office.....					
Conrad, Mining Recorder's Office.....					
	5,724 71	318 50	120 00	164 00	1,800 00

SESSIONAL PAPER No. 25

REVENUE.

at each Agency, including the Yukon Territory, &c.—*Concluded.*

Tar-Sands.	Sand, Stone and Gravel.	Petroleum.	Rental Western Provin- ces.	Miscellaneous.	Gypsun.	Patent Fees.	Improvement.	Millsite Western Provinces.	Transfer Fees, Yukon.	Total Amount.
§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	100 00
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	105 00
.....	2 50	15 00	.....	.....	.....	.....	.....	.....	.....	35,945 76
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	101,463 74
9,080 50	329 50	56,125 53	.....	.....	.....	.....	.....	.....	.....	1,079 50
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	188,366 83
.....	.....	.....	.....	.....	110 00	.....	.....	.....	.....	17,873 41
.....	165 00	3,835 75	.....	.....	.....	.....	.....	.....	.....	523 10
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	114,041 57
.....	.....	975 00	.....	.....	.....	.....	.....	.....	.....	1,069 55
.....	150 50	.....	.....	.....	.....	.....	.....	.....	.....	2,130 20
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,930 20
.....	5 00	1,010 00	.....	.....	.....	.....	.....	.....	.....	5 00
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,742 70
.....	45 00	.....	.....	.....	.....	.....	.....	.....	.....	22,194 31
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10 00
.....	165 00	.....	.....	.....	145 00	.....	.....	.....	.....	240 00
1,990 65	.....	8,067 25	128 88	72 18	383 20	.....	.....	50 00	.....	182 85
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,034 00
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	324,465 13
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	58,361 23
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,388 00
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,066 50
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,595 50
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,873 50
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	827 50
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	102,239 18
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12,772 84
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	558 50
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	126 00
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	929 01
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	26 50
.....	.....	.....	.....	.....	.....	.....	271 85	.....	.....	7,978 06
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	671 28
.....	.....	.....	.....	.....	.....	10 00	.....	.....	2 00	4,412 37
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	495 06
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	167 75
11,021 15	862 50	70,028 53	128 88	72 18	638 20	10 00	271 85	50 00	2 00	1,018,091 63

H. H. ROWATT,
Chief of Branch.

2 GEORGE V., A. 1912

REVENUE OF THE

C.—STATEMENT of Receipts from Timber, Hay, Coal, Hydraulic Mining, Dredging, Water Power, Survey Fees, and the Sale of Dominion

Month.	Quartz Acreage Sales.	Dominion Lands Sales.	Coal Sales.	Coal Mining.	Coal Royalty.	Coal Rental.	Rental Yukon.	Timber Dues Yukon.	Mining Fees.	Hydraulic Leases.
1910.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
April.....	329 60	194 12					1,990 00	1,022 25	3,411 00	56 37
May.....	56 65		43 82				5,080 53	796 61	4,622 50	
June.....		115 00				325 25		1,464 05	5,421 10	
July.....	176 89	188 37		5 00			36 49	2,033 66	5,203 00	
August.....		50 00		10 00	25 00	45 00	136 63	783 37	8,053 00	507 00
September.....	14 82	233 37			86 50	50 11	262 26	1,970 24	10,352 50	73 72
October.....	394 11	327 02					327 66	1,229 77	6,348 00	2,291 91
November.....	108 72	60 29		100 00			10 00	2,324 56	4,474 00	2,299 09
December.....	113 10	114 80	502 45		13 50		100 00	493 75	3,495 50	
1911.										
January.....							1,133 32	159 08	10,660 00	398 91
February.....	81	11 06					479 84	285 00	3,108 90	500 00
March.....	139 39	120 99					11 25	603 00	3,118 50	
Total.....	1,334 09	1,415 02	546 27	115 00	125 00	420 36	9,567 98	13,167 34	68,267 10	6,127 00

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YUKON TERRITORY.

Royalty on Gold, Mining Fees, Rental of Agricultural Lands, Water Fronts and Lands for the Fiscal Year 1910 and 1911.

Dredging Leases Yukon.	Gold Export Tax.	Free Certificates Export of Gold.	Registration Fees.	Homestead Fees.	Hay Yukon.	Water Power Yukon.	Improvements.	Miscellaneous.	Patent Fee.	Transfer Fee Yukon.	Amount.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
767 12	28 78	1 50	.....	10 00	.....	.....	.....	.....	.....	.....	7,810 74
.....	16 44	1 00	.....	10 00	72 00	.....	271 85	.....	.....	.....	10,971 40
15 94	20,362 92	27 00	.....	10 00	46 00	.....	.....	.....	.....	.....	27,787 26
.....	14,228 35	15 00	.....	50 00	46 00	.....	.....	1 68	.....	.....	21,984 44
516 16	17,877 41	15 50	.....	10 00	.....	50 00	.....	.....	.....	.....	28,079 07
86	21,526 68	33 50	6 00	.....	.....	.....	.....	5 00	10 00	.....	34,625 56
.....	19,388 59	31 00	8 00	20 00	.....	.....	.....	30 00	.....	.....	30,396 06
324 17	8,197 15	16 00	.....	.....	.....	.....	.....	.....	.....	.....	17,913 98
23 14	1,344 85	3 00	.....	.....	.....	.....	.....	.....	.....	.....	6,204 09
52 22	28 65	3 50	.....	.....	.....	1,000 00	.....	.....	.....	.....	13,435 68
200 00	163 37	3 50	4 00	.....	.....	.....	.....	.....	.....	.....	4,755 58
30 07	5 00	2 00	.....	10 00	.....	750 00	.....	.....	.....	2 00	4,794 20
1,929 68	103,168 19	152 50	18 00	120 00	164 00	1,800 00	271 85	36 68	10 00	2 00	208,758 06

H. H. ROWATT,
Chief of Branch.

2 GEORGE V., A. 1912

D.—STATEMENT showing the Total Revenue derived from the sale of Coal Land for each Fiscal Year since 1896.

Fiscal Year.	Amount.	
	\$	cts.
1896-1897.	75	76
1897-1898.	1,833	74
1898-1899.	350	00
1899-1900.	5,650	33
1900-1901.	101,772	00
1901-1902.	16,270	32
1902-1903.	31,055	38
1903-1904.	68,949	75
1904-1905.	35,695	00
1905-1906.	125,754	12
For the nine months ending March 31, 1907.	335,795	97
1907-1908.	346,813	23
1908-1909.	276,186	86
1909-1910.	377,445	86
1910-1911.	191,257	23

H. H. ROWATT,

Chief of Branch.

E.—STATEMENT showing the total Gold Production, the total subject to Royalty and the total Royalty collected for each fiscal year from May 1, 1898, to March 31, 1911.

Fiscal Year.	Gold Production.	Subject to Royalty.	Royalty Collected.	Total Revenue.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1897-1898.	3,072,773 20	2,732,928 20	273,292 82	273,292 82
1898-1899.	7,582,283 02	5,882,626 00	588,262 37	589,943 52
1899-1900.	9,809,464 64	7,307,720 00	730,771 99	733,041 04
1900-1901.	9,162,082 79	7,234,416 17	592,660 98	596,368 03
1901-1902.	9,566,340 52	8,367,225 88	331,436 79	331,532 04
1902-1903.	12,113,015 34	12,113,015 34	302,893 48	302,893 48
1903-1904.	10,790,663 12	10,790,663 12	272,217 96	272,217 96
1904-1905.	8,222,053 91	8,222,053 91	206,760 87	206,760 87
1905-1906.	6,540,007 09	6,540,007 09	163,963 25	163,963 25
1906-1907.	3,304,791 05	3,304,791 05	82,622 42	82,622 42
1907-1908.	2,820,161 60	2,820,161 60	70,594 65	70,594 65
1908-1909.	3,260,282 80	3,260,282 80	81,507 07	81,507 07
1909-1910.	3,594,251 20	3,594,251 20	89,844 10	89,844 10
1910-1911.	4,126,727 60	4,126,727 60	103,168 19	103,168 19
Total	93,964,897 88	86,296,869 96	3,889,906 94	3,897,659 44

H. H. ROWATT,

Chief of Branch.

No. 25.

REPORT OF THE TIMBER AND GRAZING BRANCH.

DEPARTMENT OF THE INTERIOR,

OTTAWA, June 15, 1911.

W. W. CORY, Esq., C.M.G.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit herewith the report of the Timber and Grazing Branch for the fiscal year which ended March 31, 1911.

The revenue derived from timber, grazing lands and hay lands for the fiscal year amounted to \$459,216.04, being an increase of \$4,267.41 over the previous year.

At the end of my report will be found statement marked 'A,' setting out the total revenue of the branch from its various sources for the year, and statement marked 'B' showing the timber revenue by agencies.

Reports from the Crown Timber Agents at Calgary, Edmonton, Prince Albert, Winnipeg, New Westminster and Revelstoke, setting out the revenue collected on Dominion Lands within their respective agencies and other information, are appended hereto.

The report of the Inspector of Ranches, whose headquarters are at Calgary, is also attached.

The revenue derived from timber and grazing lands received at the Crown Timber Agencies above mentioned, together with the ruling price of lumber, the number of mills being operated on berths held under license, and the number of portable sawmills in operation, may be summarized as follows:—

Agency.	Total Revenue.	Average price of lumber per M. ft. B. M. at mills.	No. of mills operating under license.	No. of portable mills in operation.
	\$ cts.	\$ cts.		
Calgary.....	32,070 95	15 77	15	18
Edmonton.....	52,716 50	16 00	17	20
Prince Albert.....	46,526 25	20 57	4	18
Winnipeg.....	95,979 69	16 52	31	28
New Westminster.....	120,515 91	14 44	7	
Revelstoke.....	23,191 87	17 92	11	

The returns of operations received show the following quantities of building material as having been manufactured and sold under government license during the year in the timber agencies above referred to:—

	Manufactured.	Sold.
Sawn lumber, ft. B. M.....	203,239,660	210,120,568
Shingles.....	268,000	263,000
Shingle bolts, cords.....	6,908	6,908
Railway ties.....	112,672	260,604
Laths.....	17,261,143	22,070,213

2 GEORGE V., A. 1912

The following material was manufactured and sold on permit berths and portable sawmill berths:—

	Manufactured.	Sold.
Sawn lumber, ft. B. M.	25,288,555	33,809,742
Railway ties.	1,500	7,820

The quantity of lumber manufactured and sold within each agency will be found in the agents' reports appended hereto.

The areas of timber lands held under license and permit in the provinces of Manitoba, Saskatchewan, Alberta, the Northwest Territories, and the railway belt in the province of British Columbia on March 31, 1911, were as follows:—

	Under License.	Under Permit.
	Square Miles.	Square Miles.
Manitoba	1,037.90	399.31
Alberta	2,196.58	67.26
Saskatchewan	2,193.83	371.82
The Northwest Territories	245.02	
British Columbia	1,926.06	21.18
Total	7,509.35	859.57

Of the area shown above as held under permit, 27.10 square miles are covered by portable sawmill permits issued on berths of one square mile and under, 19.50 square miles by cordwood permits covering one quarter-section; and 125.50 square miles by permits to cut fire-killed timber.

During the year 119 timber berths were granted, of which 33 were portable sawmill berths; 57 cordwood berths; 12 license berths; and 17 berths covering fire-killed timber.

GRAZING LANDS.

The granting of grazing leases is confined to the southern portion of the province of Alberta, the southwestern portion of the province of Saskatchewan, and the Kamloops division of the railway belt in the province of British Columbia. Leases are granted for such lands only as are reported by the Inspector of Ranches, after inspection, as unfit for agricultural purposes. There are in force 1,166 grazing leases, which include a number of leases issued prior to the granting of leases being restricted to the above described districts. These leases cover a total area of 3,293,539 acres, located as follows:—

	Acres.
Manitoba	1,105
Saskatchewan	848,283
Alberta	2,023,169
Railway belt, B.C.	420,982
Total	3,293,539

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OFFICE WORK.

The following is a partial statement of the office work performed at Ottawa during the fiscal year:—

Letters received and recorded (including those pertaining to irrigation and parks)	25,500
Letters sent (exclusive of those pertaining to irrigation and parks)	26,103
Plans and sketches prepared	4,586
Cash receipts issued in quadruplicate	1,383
Timber and grazing assignments registered	126
Berths applied for	322
License berths granted	12
Portable sawmill berths granted	33
Cordwood berths granted	57
Fire-killed permit berths granted	17
Licenses for timber berths prepared in duplicate	710
Instructions issued for survey of timber berths	24
Returns of survey of timber berths examined and re-examined	75
Returns of operating sawmills verified and posted	2,996
Timber permits checked and entered	9,396
Ledger accounts kept posted	930
Seizures checked and entered	221
Fire-guarding accounts posted	781
Applications for grazing lands received	1,033
Grazing leases issued	305
Applications for hay lands received	56
Ledger accounts kept posted (grazing)	1,166
Ledger accounts kept posted (hay)	4
Hay permits checked and entered	2,771

I have the honour to be, sir,

Your obedient servant,

B. L. YORK,

Chief of Branch.

2 GEORGE V., A. 1912

'A.'—STATEMENT of Receipts on account of Timber, Grazing, Hay, Fire Tax and Registration Fees for the fiscal year ending March 31, 1911.

—	Timber.		Grazing.		Hay.		Fire Tax.		Registration Fee.		Total.	
1910.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
April.....	56,560	55	5,627	68	1,666	50	827	52	8	00	64,690	25
May.....	50,900	16	5,158	38	742	30	2,394	13	5	38	59,200	35
June.....	31,485	15	5,937	21	1,028	85	159	44	4	00	38,614	65
July.....	35,612	38	2,263	40	2,446	60	14	22	6	00	40,342	60
August.....	26,331	65	5,612	36	1,542	65	257	63	.....	.....	33,744	29
September....	16,722	33	5,954	87	148	85	14	10	2	00	22,842	15
October.....	20,065	46	5,590	80	84	20	117	14	.....	.....	25,857	60
November....	44,197	36	4,850	12	35	30	27	14	6	00	49,115	92
December....	23,973	37	6,428	26	17	40	22	00	.....	.....	30,441	03
1911.												
January.....	30,237	09	5,669	82	10	65	21	08	2	00	36,000	64
February.....	21,027	32	4,577	19	35	11	1,842	27	2	00	27,483	89
March.....	19,771	65	5,586	48	4	95	5,517	59	2	00	30,882	67
	376,944	47	63,256	57	7,763	36	11,214	26	37	38	459,216	04

Certified correct,

F. LOYER,

*Clerk in charge of Accounts,
Timber and Grazing Branch.*

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'B.'—STATEMENT of Timber Revenue for the fiscal year ending March 31, 1911.

Agency.	Bonus Under License.	Ground Rent Under License.	Royalty Dues Under License.	Permit Fees, Dues and Rental.	Seizures and Fines.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Battleford				263 66		263 66
" collected at head office.				10 00		10 00
Brandon				187 50		187 50
Buffalo Park					60 00	60 00
Calgary		3,600 26	9,191 49	5,843 11	445 48	19,080 34
" collected at head office.		2,805 63		25		2,805 88
Dauphin				6,635 59	1,634 57	8,270 16
" collected at head office.				8 03	52 50	60 53
Edmonton		3,788 25	9,739 08	31,098 91	1,896 69	46,522 93
" collected at head office.	2,215 00	4,804 06			130 00	7,149 06
Estevan				72 50		72 50
Grouard				173 97		173 97
Humboldt				44 48		44 48
Kamloops				1,507 88		1,507 88
" collected at head office.				34 00		34 00
Lethbridge				233 62	5 46	239 08
" collected at head office.				25		25
Medicine Hat				293 45	26 25	319 70
" collected at head office.				12 50	12 50	25 00
Moosejaw				527 50		527 50
New Westminster	34,536 12	29,713 78	34,963 58	9,174 68	9,767 43	118,155 59
" collected at head office.		1,887 76		125 00	329 75	2,342 51
Prince Albert	1,400 00	9,471 75	21,253 69	8,883 81	4,854 60	45,863 85
" collected at head office.		126 95				126 95
Red Deer				447 49	9 00	456 49
Regina				38 00		38 00
Revelstoke	4,168 03	1,871 38	15,777 07	327 55	719 97	22,864 00
" collected at head office.		321 94				321 94
Rocky Mountains Park				1,121 00		1,121 00
Saskatoon				66 50		66 50
" collected at head office.				25		25
Swift Current				253 60	5 20	258 80
" collected at head office.				5 00		5 00
Winnipeg	16,086 64	8,503 94	33,753 15	32,948 79	2,857 41	94,149 93
" collected at head office.		1,098 15		100 00		1,198 15
Yorkton				591 55	27 00	618 55
Yoho Park				270 85		270 85
Jasper Park				1,716 69	15 00	1,731 69
	58,405 79	67,993 85	124,678 06	103,017 96	22,848 81	376,944 47

Certified correct,

F. LOYER,

Clerk in charge of Accounts,

Timber and Grazing Branch.

2 GEORGE V., A. 1912

No. 26.

REPORT OF THE INSPECTOR OF CROWN TIMBER AGENCIES.

OFFICE OF INSPECTOR OF DOMINION CROWN TIMBER OFFICES,
WINNIPEG, MANITOBA, June 12, 1911.

J. W. GREENWAY, Esq.,
Commissioner of Dominion Lands,
Ottawa.

SIR,—I beg to submit the fifteenth annual report in connection with my work as Inspector of Dominion Crown Timber Agencies for the year ended March 31, 1911. For thirty years past I have been closely identified with the timber business of the department, and, for the past fifteen years, in addition to other duties, have held my present office. In the month of December last it was deemed advisable to relieve me of the duties of Agent of Dominion Lands and Crown Timber Agent for the Winnipeg district, so that I would be able to give full and undivided attention to this business, which, of late years, has grown to large proportions, and become a source of revenue, amounting this year to upwards of \$400,000. An assistant was given me in the person of Mr. C. E. Pentz, and an office staff and equipment to carry on the work. During the year I have made a round of all the offices named for my inspection, advice of which you received in the reports upon my work as it was carried on.

In the month of June last, I opened the Crown Timber Office, established at Revelstoke, which was placed in charge of Mr. R. J. Watson. That gentleman resigned the position of agent in the beginning of the year, since which time it was decided to remove the office to Kamloops, and consolidate it with the Lands Branch, the agent, Mr. Cowell, holding the dual position of Agent of Dominion Lands and Crown Timber Agent.

It is with deep regret that I learned of the death, in May last, of Mr. James Leamy, who, for many years, held the position of Crown Timber Agent at New Westminster. Mr. Leamy's services were of great value to the department.

Of the area of timber land, held under license, not more than thirty per cent is being operated upon. This, to a small extent, is due to the timber lying in districts which do not as yet afford facilities for placing the product upon the market. In large proportion the timber is being held as an investment, the increment in value upon which is steadily growing. The licensees of berths granted five years ago and over, who have no mill in connection with their holdings, and are not meeting the requirements of the timber regulations as to the manufacture, are taxed increased rental; in some cases the rental is doubled and in others four times the ordinary rental is charged. The imposing of this penalty is considered a hardship by the licensees whose berths are so situated that they cannot be successfully worked for lack of shipping facilities, but, in the main, the additional rental charge cannot be reasonably held a matter of complaint.

The berths sold during the year brought good prices, ranging from fifty cents to \$9.50 per thousand feet, according to the quality and position of the standing timber.

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For the past ten years, millions of American capital have been invested in acquiring Dominion timber in the west. The lumbering business is now largely in the control of Americans, who have been forced out of Wisconsin, Michigan and parts of Minnesota, owing to these states being largely denuded of timber. They have shown themselves, in their operations, experienced lumbermen, careful of waste in their bush operations, and to make the most of the manufacture at the mill. This would apply also to our larger Canadian millmen who show equal enterprise and ability in conducting their business.

It is a matter, to my mind, for consideration, whether the time has not been reached for withdrawing the privilege accorded to owners of portable sawmills, in districts which are well supplied with lumber markets stocked by the legitimate lumbermen. The destruction of lumber, through the operations of these itinerant lumbermen, as the result of the method employed in their cutting, and the increased danger from fire in the timber on the tract cut upon, are altogether too great to be met by the small advantage gained by a comparative few, who are served by these mills. Apart from those districts which are remote from a line of railway and from a lumber market, I do not think it is in the public interest to continue to award berths to the owners of portable sawmills. This view, I believe, is shared by all the officers in the west who are familiar with the working of these mills.

From statistics carefully gathered, I am able to give you the amounts of lumber marketed in Manitoba, Saskatchewan and Alberta, during the year:—

From British Columbia mills.. . . .	620,000,000
From Western Ontario (pine).. . . .	140,000,000
From United States.. . . .	122,000,000
Manufactured within above provinces (spruce).. . . .	135,524,202
Total.. . . .	1,017,524,202

In the quantity of lumber from British Columbia, 88,773,929 feet were cut within the railway belt, upon Dominion Lands, the remainder came from the Mountain and coast mills, operating under provincial license. Owing to the slackness in the lumber trade in the western states, the shipments from the American mills to western Canada, where the market was active, were much larger than for many years past, totalling 122,000,000 feet. In addition to lumber, there was also imported from the United States 9,000,000 lath and 2,000,000 shingles.

I respectfully draw your attention to the particulars given in the following statements attached:—

- 'A.' Summary of work and revenue.
- 'B.' Showing timber products manufactured, sold and in stock.
- 'C.' Timber material authorized to be cut under permits issued.
- 'D.' Showing number of hay permits issued and amount of hay covered thereby.

The work outlined for the present year in this office includes the making of an audit of the books of the lumbermen operating under Dominion License and Permit for the purpose of checking up the manufacture and sale of timber products as shown thereby with the returns made to the department. Mr. Pentz, my assistant, will be chiefly engaged at this work.

Respectfully submitted,

E. F. STEPHENSON,

Inspector of Crown Timber Agencies.

2 GEORGE V., A. 1912

STATEMENT A.—Summary of Work performed at the Respective Crown Timber Offices during the Year ended March 31, 1911, showing Transactions under Various Heads and Amount of Revenue Collected.

Agency.	TIMBER AND GRAZING BRANCH.						SCHOOL LANDS BRANCH.				Revenue.	Remarks.		
	Bonus.	Ground Rent.	Royalty on Sales.	Timber Permits.	Timber Seizures.	Hay Permits.	Grazing Rentals.	Sundries.	Timber Permits.	Hay Permits.			Grazing Rentals.	Sundries.
Battleford				335	8	85	2			114	29		1,513 44	
Brandon				115			1			1	19	4	818 43	
Calgary		29	34	565	5	99	85	1		178	98		26,993 22	
Dauphin				1,367	53	117			10	117	10		9,526 48	
Edmonton		58	32	2,190	54	533			27	397	30		50,036 21	
Estevan				81		47				116	16		607 74	
Graveland														
Humboldt				155		125	13			184	75	7	1,456 18	Returns not received.
Kamloops				150		15	286						8,830 20	
Lethbridge				89	2	36	69			35	19		2,946 73	
Medicine Hat				686	1	146	260	3		38	52		11,246 86	
Moose Jaw				1,984		274	36	24		312	21		3,044 21	
New Westminster	15	315	111	45	42								118,156 69	
Prince Albert	1	24	22	1,298	42	170			16	119	22		47,145 15	
Red Deer				293	1	112	2	18	5	198	26	5	2,037 01	
Regina				58		92			12	256	63		2,535 83	
Revelstoke	3	23	52	10	8			1					22,869 93	
Saskatoon				79		171				153	30		1,315 98	
Swift Current				978	1	245	88		1	141	33		3,163 91	
Yorkton				410	1	100	1			148	21		3,863 15	
Winnipeg	9	114	112	1,331	51	258	1	8	11	269	3	11	98,419 61	
Totals	28	563	363	12,115	272	2,555	844	53	83	2,907	567	27	417,525 36	

E. F. STEPHENSON,

Inspector of Crown Timber Agencies.

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STATEMENT B.—Showing manufacture and sale of Timber Products by holders of Timber Berths on Dominion Lands cut under yearly license, during the Departmental year ended March 31, 1911.—Approximately correct; returns not all in.

Agency.	LUMBER.			LATHS.			Railway Ties.	SHINGLES.			SAW LOGS.		
	Manu- factured.	Sold.	On Hand.	Manu- factured.	Sold.	On Hand.		Manu- factured.	Sold.	On Hand.	Pieces Cut.	Manu- factured at Mill.	On Hand.
Calgary.....	18,035,498	15,382,556	8,258,145	1,696,050	1,696,050	.....	49,458	.....	.....	.....	484,973	407,350	786,841
Edmonton.....	15,116,146	18,307,198	3,376,143	2,491,280	2,501,780	149,650	.....	.....	.....	856,650	358,976	272,956	237,467
New Westminster..	20,823,725	20,823,725	Not known.	.....	.....	.....	250	.....	182,350	.....	29,115	29,115	.....
Prince Albert.....	33,944,805	33,656,201	6,846,476	4,476,230	5,899,400	1,390,750	144,635	34,540,000	34,540,000	.....	1,568,029	432,458	1,855,506
Revelstoke.....	67,950,204	67,950,204	Not known.	.....	.....	.....	12,831	3,140,000	3,140,000	.....	486,564	486,564	.....
Winnipeg.....	47,369,283	54,000,684	23,103,691	10,293,633	13,669,033	1,179,800	93,815	.....	.....	.....	787,986	1,017,934	1,068,547
Total for year end- ed March 31, 1910.	203,229,651	210,120,968	40,584,363	18,957,193	23,766,363	2,720,200	200,089	37,948,000	37,862,350	856,650	3,716,243	2,646,377	3,968,881
	214,981,743	279,130,546	50,331,680	23,797,335	27,884,448	5,923,685	165,596	76,131,000	106,977,000	Not known.	Not known.	3,643,731	3,066,760
CUT FOR THE TRADE UNDER PERMIT.													
Calgary.....	4,193,428	3,299,556	1,970,725	478,741	479,741	.....	7,820	630,000	.....	.....	89,298	67,500	66,242
Edmonton.....	5,879,222	13,168,949	3,483,736	478,741	.....	.....	10,700	.....	503,250	.....	137,818	99,042	130,676
Kamloops.....	2,000,000	2,000,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Westminster..	1,472,808	1,207,646	848,354	.....	.....	.....	.....	.....	.....	.....	45,911	34,795	41,800
Prince Albert.....	13,802,171	16,177,663	1,166,166	.....	.....	.....	.....	.....	.....	.....	315,585	311,642	18,448
Revelstoke.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Winnipeg.....	27,347,629	35,818,714	7,468,981	478,741	479,741	.....	18,520	630,000	503,250	.....	588,612	513,609	257,166
Total for year end- ed March 31, 1910	294,296,647	19,883,226	15,745,011	.....	.....	.....	331,006	.....	.....	.....	Not known.	571,361	116,516

E. F. STEPHENSON,
Inspector of Crown Timber Agencies.

2 GEORGE V., A. 1912

STATEMENT C.—TIMBER Material Covered by Permits Issued at the Respective Agencies, principally to Homestead Settlers, during the Year ending March 31, 1911.

Agency.	Lumber and Logs, Feet, B.M.	Roof Poles.	Fence Posts.	Fence Rails.	Cordwood, Cords.	Mine Props, L. Ft.	Shingles.	Railway Ties.	Telegraph Poles.
Battleford	2,019,886	55,432	75,275	255,380	1,935				
Brandon	58,000	200			686				
Calgary	6,022,471	132,374	659,250	183,027	16,764			4,000	1,400
Dauphin	5,220,080	9,300	51,000	10,610	11,742			963,450	18,948
Edmonton	11,534,207	217,717	371,705	1,538,574	1,321		54,000		
Estevan	9,000	900	2,000	1,600	522				
Grond	78,950	2,800	4,000	14,500	70				
Humboldt	918,048	18,345	28,710	79,345	655				
Kamloops	2,547,532	3,000	8,400	17,250	3,612			10,700	2,380
Lethbridge	140,596	6,210	12,805	12,290	806	35,000			
Medicine Hat	2,757,145	136,430	135,730	435,475	12,489				
Moosaw	7,793,748	389,533	591,080	1,159,915	15,907				
New Westminster	18,236,977	179,768	249,117	91,488	28,312		30,790,000	5,000	
Prince Albert	1,482,461	57,153	54,238	183,634	1,992		8,000	6,500	310
Red Deer	21,000	1,000	4,150	1,150	532				
Regina			1,450		1,170				
Revelstoke			11,300	79,150	643				
Saskatoon	116,400	5,700	359,251	999,405	11,949				
Swift Current	1,733,284	225,258			1,437				
Yorkton	2,025,128	6,200	24,970	25,880	31,785				
Winnipeg	2,340,824	24,785	52,560	73,852	42,982			19,500	
Winnipeg	130,000		18,500						
Totals	65,408,595	1,446,595	2,704,721	5,102,625	186,838	35,000	30,852,000	1,015,150	23,038

* Settlers, permits. † Holders cordwood berths.

E. F. STEPHENSON,
Inspector of Crown Timber Agencies.

SESSIONAL PAPER No. 25

STATEMENT 'D' showing the number of Hay Permits and the amount of hay covered thereby, issued to settlers from the different Dominion Land Offices in Manitoba, Saskatchewan, Alberta and British Columbia, for the year ended March 31, 1911.

Agency.	DOMINION LANDS.		SCHOOL LANDS.		Dues and Fees Collected.
	No. Permits issued.	Tons Hay.	No. Permits issued.	Tons Hay.	
					8 cts.
Battleford	85	4,556	114	2,443	896 15
Brandon	51	869	102	792	193 70
Calgary	99	23,723½	178	9,237½	975 20
Dauphin	117	1,064	117	2,192	544 70
Edmonton	533	10,034	397	8,505½	2,535 95
Estevan	47	1,060	116	1,900	353 05
Grouard	8	463			
Humboldt	125	2,005½	184	3,041	650 15
Kamloops	15	232			36 30
Lethbridge	36	369½	35	848	195 05
Medicine Hat	146	6,569	38	1,326	635 11
Moosejaw	267	5,728½	211	6,047½	1,271 20
New Westminster					
Prince Albert	170	3,898½	119	2,230½	810 01
Red Deer	112	3,682	198	7,343	1,141 50
Regina	20	522	251	5,586	796 95
Revelstoke					
Saskatoon	171	3,367	153	2,819	
Swift Current	245	4,792	141	2,133	988 98
Winnipeg	250	4,402	299	6,446	1,286 10
Yorkton	95	1,628	134	2,626½	609 00
Totals	2,502	78,925½	2,787	65,516½	13,919 10

E. F. STEPHENSON,

Inspector of Crown Timber Agencies.

No. 27.

REPORT OF THE CROWN TIMBER AGENT AT WINNIPEG.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

WINNIPEG, MANITOBA, May 18, 1911.

J. W. GREENWAY, Esq.,

Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to submit the following report respecting the Winnipeg Crown Timber Office, for the year ending March 31, 1911, to which are appended the following tabulated statements, viz.:—

Schedule 'A,' showing receipts from timber, grazing and hay permits on Dominion lands.

Schedule 'B,' giving the names of berth holders operating under license, and the extent of such operations.

2 GEORGE V., A. 1912

Schedule 'C,' showing the mills operated under permits, including portable saw-mills. This statement shows also the quantity of green and fire-killed timber cut last winter under permits on Dominion lands.

Schedule 'D,' furnishing particulars relating to the general office work during the year.

In addition to the timber accounted for by schedules 'B' and 'C,' the following was cut by settlers and others on Dominion lands, viz.:—

SETTLERS' PERMITS.

Three hundred and forty-five permits were issued to settlers authorizing the cutting of the following quantity of timber for use on their farms:—

Lumber (feet B.M.)	1,466,345
Buildings logs (lineal feet)	291,493
Fence rails	73,862
Fence posts	52,560
Roof poles	24,785

Seven hundred and thirteen permits were issued to settlers and others under Section 42 of the Timber Regulations, covering 31,785 cords of wood.

CORDWOOD BERTHS.

Forty-six cordwood berth permits were issued, authorizing the holders thereof to cut the following timber:—

Cords of wood	11,450
Railway ties	19,500
Fence posts	17,000
Lineal feet of logs	10,000

PERMIT BERTHS.

Thirty-eight permits were issued on permit berths (acquired under the old regulations) authorizing the cutting of 25,182 cords of wood, in addition to the lumber accounted for in Schedule 'C.'

SEIZURES.

During the past year 47 seizures were made covering timber cut on Dominion lands, as follows:—

Lumber (feet B.M.)	822,333
Logs (lineal feet)	5,451
Fence posts	36,694
Railway ties	750
Cords of wood	477

The dues and expenses in connection with these seizures amounted to \$3,834.24.

HAY PERMITS.

Number of hay permits issued on Dominion lands	250
Tons of hay covered thereby	4,402

CORDWOOD BERTHS.

Thirteen cordwood berth permits were issued, and the holders thereof authorized to cut 4,950 cords of wood and 1,500 fence posts.

PERMIT BERTHS.

Twelve permits were issued on permit berths (acquired under the old regulations) covering 1,400 cords of wood.

A separate report has already been forwarded to the Forestry Branch relating to forest fires in the Winnipeg district during the past fiscal year.

Your obedient servant,

ANDREW FREEMAN,
Crown Timber Agent.

SESSIONAL PAPER No. 25

SCHEDULE A.—Statement of receipts from Crown Timber Agency at Winnipeg for Fiscal Year ending March 31, 1911.

Month.	Bonus under License.	Ground Rent under License.	Royalty Dues and License.	Permit Fees, Dues and Rental.	Seizures.	Grazing Lands Rentals.	Hay Permits, Fees and Dues.	Fire Guarding Fees.	Sundries.	Totals.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1910.										
April	1,250 00	2,655 12	3,364 47	888 56	389 58		150 30	9 40	8 00	8,715 43
May	1,625 22	2,406 01	530 78	2,664 27	1,187 01		53 40		5 38	8,872 07
June	2,365 90	2,211 07	2,660 61	1,401 21	349 99		23 30	2 20	2 00	9,216 28
July		58 00	2,681 19	4,623 15	117 60		184 80			7,664 74
August		36 34	6,134 39	1,382 04	24 00	4 45	146 25			7,727 47
September	4,945 93	300 33	51 70	554 25			10 70			5,863 51
October		59 42		467 04	11 70		50			2,703 54
November		80 45	2,161 38	7,540 32			1 20		2 00	14,778 96
December	3,034 99	263 91	631 13	4,291 53	100 00		1 00			8,322 56
1911.										
January	2,000 00	382 19	3,130 67	5,447 22	104 25			55	2 00	11,066 88
February			2,021 76	2,920 43	213 68	4 45			2 00	6,162 32
March	664 60	50 00	2,830 08	768 77	356 60			90	2 00	4,672 95
Totals	16,065 64	8,503 94	33,753 15	32,948 79	2,857 41	8 90	571 45	13 05	23 38	94,766 71
Head office collections—										
1910.										
April		510 00								510 00
May		452 87								452 87
June		50 00				80				50 80
July		45 28				1 60				46 88
August										
September										
October		15 00					2 00			17 00
November										
December										5 12
1911.										
January		25 00								25 00
February										
March				100 00			5 31			105 31
Totals		1,098 15		100 00		7 52	7 31			1,212 98
Grand total										95,979 69

Bonuses are collected at head office.

NOTE—Bonuses

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SCHEDULE B.—Showing the Sawmills operating within the Winnipeg Agency

No.	Mill Owner.	Location of Mill.	Berth No.	Kind of Power.
1	Burrows, T. A.	Grandview.	571A	Steam.
2	"	Duck Mountain.	814	"
3	"	Garland.	986	"
4	"	"	992	"
5	"	"	1120	"
6	Bank of Ottawa.	13-32-29 W. 1st.	1148	Steam.
7	Bank of Toronto	Winnipeg	624	"
8	Bank of Ottawa	7-45-7 W. 1st.	960	"
9	Canadian Bank of Commerce	Mafeking	1101	"
10	"	(No mill)	1258	"
11	Dauphin Lumber Co.	Grandview.	575	Steam.
12	Davis, T. O.	Erwood.	1261	"
13	Dare, James A.	Grindstone Point.	1023	"
14	Dutton, H. P.	Greenbush.	1597	"
15	Galloway, Roper.	(No mill)	1388	"
16	Hambury, John	Brandon.	15	Steam.
17	Jefferson, W. D.	21-21-1 E.	1256	"
18	"	"	1061	"
19	"	"	1277	"
20	"	"	1127	"
21	Keay, R. H.	S 1-33-30-30 W. 1st.	742	Steam.
22	Moore, Ed. D.	Rivertown.	950	"
23	"	"	1245	"
24	McArthur Co. Ltd., J. D.	Grassy Narrows.	702 Blk 4	Steam.
25	"	Lac du Bonnet.	857	"
26	"	"	967	"
27	"	"	1189	"
28	"	"	965A	"
29	"	"	1013	"
30	McArthur, Peter.	Pelican Bay	824	Steam.
31	"	"	838	"
32	"	"	1062	"
33	"	"	1063	"
34	"	"	1145	"
35	McClure, J. H.	15-19-2 E.	900	Steam.
36	"	"	924	"
37	McKenzie, Maan & Co.	Mistakim.	1241	Steam.
38	McLennan, Hillson & Rogers.	Hudson Bay Junction.	964	"
39	Peden, Wm	30-20-22 W. 1st.	752	"
40	Robinson Wm	Little Black River.	716	"
41	"	"	869	"
42	Rosenstock, N. & J.	(No mill)	1252	"
43	Rutley, James.	E 1-12-22-17 W. 1st.	888	"
44	Red Deer Lumber Co.	Barrovs	92	"
45	"	"	823	Steam.
46	"	"	988	"
47	"	"	1051	"
48	"	"	1239	"
49	Sinnott, John.	Shortdale	27A	Steam.
50	Shaw, J. & T.	Greenbush.	974	"
51	"	"	980	"
52	Thomas, M. J. & S. T.	10-18-3 E.	603	Steam.
53	Thomas, J. T.	"	976	"
54	Thompson Lumber Co.	9-24-6 E.	1254	Steam.
55	Williams, W. J. F.	30-29-13 W. 1st.	944	"
56	Mutchenbacher, Bros	Mafeking	1614	"

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under Government License for the Fiscal Year ending March 31, 1911.

Horse Power.	Capacity per 10 hours.	Species of Timber cut.	Manufactured Ft. B.M.	Sold Ft. B.M.	On hand Ft. B.M.
250	70,000	Spruce and tamarack.	1,800,000	1,800,000	.....
100	30,000	.....	314,749	365,749	.....
60	30,000	.....	2,144,298	3,380,032	1,603,588
.....	.....	.....	729,263	17,623	711,640
30	10,000	Spruce.	300,000	262,699	337,301
150	50,000	" and pine	25,100	907,831	.....
300	100,000	" tamarack and poplar	.....	586,130	267,812
200	50,000	.....	3,893,514	5,072,698	4,441,047
.....	.....	Cedar.	.....	.....	.....
250	70,000	Spruce	322,733	10,355	312,378
150	20,000	Poplar.	68,333	291,397	.....
50	15 to 20,000	Spruce.	.....	.....	.....
150	50,000	"	.....	.....	.....
85	30,000	"	3,439,264	1,957,331	1,481,933
40	8,000	" and tamarack	35,820	24,000	11,820
.....	.....	.....	49,892	140,000	135,268
.....	.....	.....	35,820	118,820	.....
25	8,000	Spruce.	375,000	465,000	10,000
45	10,000	" and tamarack	.....	57,000	.....
.....	.....	.....	.....	.....	100,000
50	15,000	Spruce and tamarack	693,000	.....	693,000
100	50,000	"	296,338	367,786	.....
.....	.....	.....	42,874	42,874	.....
.....	.....	.....	135,776	1,109,686	63,089
.....	.....	.....	1,714,393	787,456	926,937
70	40,000	Spruce and tamarack	2,457,902	2,144,806	652,734
.....
80	12,000	Spruce and poplar	.....	100,881	.....
.....	.....	.....	80,000	195,000	443,650
70	35,000	Spruce.	2,186,515	676,268	1,510,247
200	25 to 30,000	"	1,710,381	1,262,461	1,903,188
35	8,000	" tamarack and poplar	45,000	127,000	32,000
120	25,000	" and tamarack	706,357	706,357	.....
.....	.....	.....	1,435,150	2,067,150	1,387,640
32	7,000	Spruce, tamarack and poplar	375,468	375,468	.....
600	120,000	"	4,800,036	9,042,165	1,185,426
.....	.....	.....	5,001,582	5,805,138	840,426
.....	.....	.....	2,016,407	4,162,826	551,489
.....	.....	.....	.....	579,647	.....
.....	.....	.....	1,969,426	3,248,612	412,440
40	15,000	Spruce and tamarack	723,537	789,177	50,625
150	50,000	"	5,854,256	4,480,650	1,919,961
.....	.....	.....	25,106	25,106	.....
60	20,000	Spruce.	84,668	84,668	.....
.....	.....	"	40,448	62,847	8,000
50	15,000	"	231,000	221,000	20,000
16	5,000	Spruce and poplar	65,000	78,000	55,000
200	50,000	"	1,034,957	1,034,957
.....	47,369,283	54,000,684	23,103,601

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SCHEDULE B.—Showing the Sawmills operating within

No.	LOG COUNT.			Average per Log Ft. B.M.	RAILWAY TIES.			LATHS.	
	Logs Cut.	Logs Manu- factured.	Logs on hand.		Manu- factured.	Sold.	On hand.	Manu- factured.	Sold.
1		39,923		45					
2		4,529		69					
3	53,304	42,656	75,945	50					
4	41,601	13,508	28,093	53					
5	55,009		107,368						
6	6,543	6,180	646	48					
7	151	151		166					
8			73,878						74,000
9	54,304	54,304		71	10,222	10,222	1,315		
10					160	160			
11	8,540	8,540		37					
12		560		121					
13	12,103		12,103						
14	8,938		16,938						
15	34,142		34,142						
16	64,189	65,556	70,015	52					
17	700	700		51					
18	975	975		51					
19	700	700		51					
20	1,200		1,200						
21	7,217	10,287	1,500	36					
22									
23									
24	19,852	19,852		35					
25	3,000	8,300	3,000	35					
26		1,200		35					
27	26,000	3,800	26,000	35					
28	8,927		8,927						
29		48,000		35					
30	9,706	57,637	51,498	42	1,948	747	1,201	13,733	65,483
31			6,831						
32					6,420		6,420		
33			4,172						
34					11,005	7,105	3,400		
35									
36	8,550	2,000	7,650	40					
37		21,017		104	6,506	61,459			
38	32,166	45,233	105,995	37				850,000	575,900
39	1,020	1,520							
40	15,845	19,778	15,845	35					
41	21,998	42,630	21,998	34					
42							2,903		
43	9,617	7,928	3,184	47					
44	115,836	115,303	153,505	42				2,505,650	4,361,450
45	35,200	114,133	90,157	43				2,447,050	3,166,650
46	35,200	48,191	52,375	41				1,036,350	1,866,250
47									
48	46,258	45,799	62,814	43				903,850	1,333,300
49	10,511	16,064	10,209	45					
50	18,269	126,719	30,269	46				2,537,000	2,226,000
51	6,615	320	6,615	78					
52	1,091	2,432		34					
53		1,400	500	28					
54		7,400		21					
55	2,035	2,035	175	32					
56	10,674	10,674		73	14,122	14,122			
	787,986	1,017,934	1,088,547	50,383	93,815	15,239	10,293,633	13,669,033

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the Winnipeg Agency under Government License, etc.—*Concluded.*

On hand.	Average Price of Lumber per M. feet.	Number of Returns made.	Date of Last Return.	Remarks.
	\$ cts.			
	17 50	4	March 31, '11.	
	16 00	4	"	
	18 00	4	"	
	16 00	4	"	
		4	"	
	16 66	4	"	Operated by Durban Lumber Co.
	16 41	4	"	Operated by D. E. Sprague.
	15 00	4	"	Operated by Shaw Bros.
	15 06	4	"	13,442 logs error in count; operated by Mutchenbaker Bros.
		4	"	Operated by John C. Comlins.
	14 00	4	"	
	15 00	4	"	
		4	"	
		4	"	14,885 logs destroyed by fire.
		4	"	
	20 00	4	"	
	16 50	4	"	
	16 50	4	"	
	18 62	4	"	
		4	"	
	14 50	4	"	
	18 00	4	"	
		4	"	
		4	"	Operated by the Beaver Lumber Co.
	16 50	4	"	
	16 00	4	"	
	17 00	4	"	
		4	"	
	17 00	4	"	
1,700	20 23	4	"	
		4	"	
		4	"	
		4	"	500 railway ties destroyed by fire.
	14 00	4	"	
	15 50	4	"	
		4	"	
790,100	18 35	4	"	
	16 50	4	"	
	18 00	4	"	
	18 00	4	"	
		4	"	
	10 00	4	"	
3,650	16 81	4	"	
	16 81	4	"	
	16 81	4	"	
	16 25	4	"	
	16 25	4	"	
	16 31	4	"	
384,350	20 21	4	"	Operated by Great West Lumber Co.; 48,502 logs destroyed by fire.
	15 00	4	"	Operated by Tisdale Lumber Co.
	15 66	4	"	
	15 66	4	"	Error in returns; 994 logs to be written off.
	17 00	4	"	
	17 25	4	"	
		4	"	

2 GEORGE V., A. 1912

SCHEEULE C.—Showing the Mills (including the Portable Mills) operating within the

No.	Mill Owner.	Location of Mill.	Berth No.	Species of Timber Cut.	LUMBER.	
					Manufactured, Ft. B. M.	Sold Ft. B. M.
Portable Sawmill Berths.						
1	Blackburn and Somerville ..	27-32-20 W 1st.	1508	Spruce and poplar.		85,000
2	Bufson, W. F.	N W 27-39-25 W 1st.				
		1st.	1636	"	40,000	32,000
3	Cockerill, Chas.	24-27-27 W 1st.	1740	"	36,000	27,000
4	Fulton, Thos.	Etoimami	1345	"		146,270
5	Funisson, Keis.	S E 14-24-3 E.	1718	"	112,500	25,000
6	Funisson, Sigt.	N W 12-23-3 E.	1754	"		
7	Gamache, P.	5-23-2 W 1st.	1531	"		76,311
8	Gamache, A. J.	5-23-2 W 1st.	1757	"		
9	Gunn, D. J.	N E 1-37-8 W 1st.	1623	"	28,000	14,000
10	Hall, Erik.	SE24-18 18 W 1st.	1483	"		21,264
11	" "					

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Winnipeg Agency, under Government Permits, for the Fiscal Year ending March 31, '11.

LOG COUNT.				Average per Log Ft. B. M.	Average Price of Lumber per M. ft.	No. of Returns Made.	Date of Last Return.	REMARKS
On Hand Ft. B. M.	Logs Cut.	Logs Manufactured.	Logs on Hand.					
					\$ cts.			
					14 06	1	June 30, '10....	Cancelled.
8,000	600	500	100	89	12 00	3	Dec. 31, '10....	
9,000	2,630	600	2,030	45	15 56	1	Mar. 31, '11....	
					18 00	4	" " " "....	Cancelled.
87,500	2,500	2,500		45	12 00	2	" " " "....	
	900		900			1	" " " "....	
					14 33	3	Nov. 25, '10....	Cancelled.
	747		747			1	Mar. 31, '11....	
29,000	707	700	272	105	14 66	3	Dec. 31, '10....	
					13 00	1	June 30, '10....	Cancelled.
13,700	1,832	1,100	732	30	12 00	1	Mar. 31, '11....	
								First return not yet received.
15,000	1,339	1,339		29	20 00	4	Mar. 31, '11....	
55,000	1,760	3,860		40	16 00	4	" " " "....	
		440		37	15 00	1	June 30, '10....	Cancelled.
8,282	1,168	120	1,048	89	14 50	3	Mar. 31, '11....	
	2,125		2,125			1	" " " "....	
					12 00	3	Dec. 31, '10....	
	200		200		15 00	4	Mar. 31, '11....	
	3,800	5,300		20	12 00	1	June 30, '10....	Cancelled.
12,228	5,819	5,507	312	15	13 00	1	Mar. 31, '11....	
					18 66	3	Dec. 31, '10....	Cancelled.
33,555	1,263	941	322	42	16 00	1	Mar. 31, '11....	
56,000	500	1,000	500	50	15 00	2	Sept. 30, '10....	
	975	925	50	40	15 00	1	Mar. 31, '11....	
			1,000		14 00	4	" " " "....	
					14 00	1	June 30, '10....	Cancelled.
40,000	3,028	2,878	150	25	15 60	4	Mar. 31, '11....	
58,780	1,700	1,600	100	34	13 00	1	" " " "....	
					14 66	3	Nov. 30, '10....	Cancelled.
10,000	1,400	900	500	16	15 00	1	Mar. 31, '11....	
436,045	35,053	30,210	11,148					
					16 00	3	Jan. 31, '11....	Cancelled.
596,521	7,514	7,514		58	17 50	4	Mar. 31, '11....	
133,600		4,000		28	16 50	4	" " " "....	
	2,000	400	2,000	35	18 00	4	" " " "....	
	1,500		5,300			4	" " " "....	
1,166,166	46,067	42,124	18,448					

Ft. B. M.

Scaling (Scribner's rule).. 753,103

" " .. 5,115,645

" " .. 1,968,114

" " .. 635,858

" " .. 1,641,817

" " .. 2,384,827

" " .. 292,152

" " .. 333,333

12,227,849

2 GEORGE V., A. 1912

SCHEDULE D.—General Office Return of the Crown Timber Agency, Winnipeg, for
Fiscal Year ending March 31, 1911.

Particulars.	Number, &c.	As compared with previous year.	As compared with previous year.	Remarks.
		Increase.	Decrease.	
Letters received	18,218		3,508	Including land department No separate record kept.
Letters written	20,616		510	
Permits subject to dues issued.....	578	201		
Free Permits issued.....	683	106		
Seizures made.....	57	4		
Mill Returns received and verified....	632	39		
Mills operating under government license.....	31			
Mills operating under government permits.....	28	2		
Quantity of lumber manufactured, under license.....	47,369,283		12,800,659	
Quantity of lumber sold, under license.	54,000,684		18,960,549	
Quantity of lumber on hand, under license.....	23,103,601		8,436,232	
Average price at which lumber sold per M.....	\$16.52	\$1.89		
Hay permits issued.....	251	79		

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No. 28.

REPORT OF THE CROWN TIMBER AGENT AT EDMONTON.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

EDMONTON, ALBERTA, May 30, 1911.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to submit the annual report of the Edmonton Crown Timber Agency for the financial year ending March 31, 1911.

As anticipated in my last annual report operations this year have been on a much larger scale than formerly, and a number of licensed berths in the western portion of the agency have commenced operations during the past winter, and several powerful and up to date mills are now in course of erection on the Macleod and Athabaska rivers; there should, therefore, be a notable increase in the cut during the coming year. The group of berths on the Saskatchewan river report a log cut of about twenty million feet during the past winter, the whole of which timber will be manufactured at the Edmonton mills. Operations in the southern Red Deer portion of the agency have also been larger this winter, the advent of the Canadian Northern and Alberta Central railways building to the Brazeau coal fields having made it possible for berth holders to place their lumber on the market in the immediate future.

Numerous private cruisers are at work in the agency and many applications for new berths have been and will be received.

The needs of the settlers are being met by one hundred and one portable saw-mills, cutting under settlers' permits, each mill owner reporting to this office and careful record of the work being kept here. In fact, the quantity of timber cut by settlers at these mills will probably equal if not exceed the amount cut under license and permit by the larger operators.

The timber berths at present held under license in this agency number 130, each making quarterly returns; of these 32 were operated during the period; in addition there are 19 portable sawmill berths, and 15 cordwood berths.

During the year a number of railway construction timber permits were issued, covering 968,500 railway ties, and as a large number of ties were also cut by the holders of licensed berths, the number of ties delivered to the various companies should largely exceed a million.

The new Rocky Mountains forest reserve now being located is situated largely in this agency and will be of inestimable value in protecting the headwaters of the numerous rivers rising in the foothills, and providing a future source of timber supply for the prairie country to the east.

2 GEORGE V., A. 1912

The year's manufacture of lumber was as follows:—

	Ft. B.M.
(a) By licensed berth holders.	15,116,146
(b) By permit berth holders.	5,879,222
(c) By portable sawmills under settlers' permits.	9,236,244

Timber permits issued during the year covered the following: 1,609,516 lineal feet building logs; 5,638,832 feet B.M. sawn lumber; 1,538,574 fence rails; 217,717 roof poles; 371,795 fence posts; 1,321 cords of wood; 968,500 8-feet railway ties; 18,948 telephone poles.

The following schedules accompany the return, under separate cover:—

'A.'—Statement of receipts.

'B.'—Sawmills operating under government license.

'C.'—Mills, including portable sawmills, operating under permit.

'D.'—General office return.

It will be noticed that the revenue collected again shows a remarkable increase, from \$37,719.79 to \$52,716.50.

Your obedient servant,

K. W. MACKENZIE,

Crown Timber Agent.

SESSIONAL PAPER No. 25

SCHEDULE A.—STATEMENT of Receipts from Crown Timber Agency at Edmonton for Fiscal Year ending March 31, 1911.

Month.	Bonus under license.	Ground rent under license.	Royalty dues under license.	Permit fees, dues and rental.	Seizures.	Hay permits fees and dues.	Totals.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1910.							
April	Note.—Bonuses are collected at Head Office.	323 12	1,738 31	2,752 97	256 93	373 05	5,444 38
May		2,056 72	223 18	397 62	88 75	70 50	2,836 67
June		78 72		145 84	247 36	163 95	635 87
July		488 75	771 92	10,928 14	46 60	360 60	12,596 01
August		180 99		1,661 78	341 05	438 00	2,621 82
September		30		328 05	40 20	55 80	424 35
October		83 30	2,972 27	3,235 70	140 59	43 90	6,475 76
November		83 84	54 90	1,814 13	39 20	3 90	1,995 97
December				3,561 34	43 60	2 70	4,007 64
1911.							
January	Note.—Bonuses are collected at Head Office.	492 33	723 60	2,043 57	278 55	35	3,538 40
February			1,766 90	1,335 73	156 82		3,259 45
March		18	1,488 00	2,494 04	217 04	1 60	4,200 86
Totals		3,788 25	9,739 08	31,098 91	1,896 69	1,514 25	48,037 18
Collected at Head Office— 1910.							
April							
May							
June		367 30					367 30
July							
August		11					11
September							
October		2,625 00					2,625 00
November	1,210 00	461 93					1,671 93
December		14 98					14 98
1911.							
January							
February							
March							
Total	1,210 00	3,469 32					4,679 32
Grand total							52,716 50

2 GEORGE V., A. 1912

SCHEDULE B.—Showing the Sawmills operating within the Edmonton Agency

No.	Mill Owner.	Location of Mill.	Berth No.	Kind of Power.	Horse Power.
1	D. R. Fraser & Co.	Edmonton.	9, blocks 5 & 6	Steam.	280
2	John Walter	Edmonton and Strathcona.	"	"	260 & 425
3	D. R. Fraser.	Edmonton.	788	"	As above.
4	W. E. McDougall.	Berth.	863	"	40
5	Jno. Walter	Edmonton and Strathcona.	887	"	As above.
6	Foulger & Rowley.	Pigeon Lake.	949	"	90
7	Jno. Walter.	Edmonton and Strathcona.	956	"	As above.
8	"	"	1008	"	"
9	D. R. Fraser & Co.	Edmonton.	1008	"	"
10	Blain & McKelvey.	Berth.	1019	"	"
11	D. McDonald et al.	"	1040	"	"
12	W. B. McPherson.	"	1065	"	15
13	F. R. Petterphers.	"	1079	"	30
14	Edmonton Trust Co., operated by Hislop & Goodridge.	Entwistle.	1088	"	75
15	D. R. Fraser & Co.	Edmonton.	1091	"	As above.
16	John Walter.	Edmonton and Strathcona.	1092	"	"
17	T. A. Burrows.	"	1093	"	"
18	"	"	1094	"	"
19	John Walter, operated by H. L. McInnis.	"	1095	"	"
20	T. A. Burrows.	"	1099	"	"
21	Edmonton Trust Co., operated by Edmonton Lumber Co.	Edmonton.	1125	"	275
22	D. R. Fraser & Co.	"	1141	"	As above.
23	"	"	1156	"	"
24	Lawrence Garneau.	Berth.	1172	"	"
25	J. J. Anderson.	"	1185	"	35
26	John Walter.	Edmonton and Strathcona.	1211	"	As above.
27	The Valley Lumber Co.	Berth.	1216	"	35
28	John Walter.	Edmonton and Strathcona.	1242	"	As above.
29	D. R. Fraser & Co.	Edmonton.	1242	"	"
30	Edmonton Lumber Co. (operators).	"	1262	"	"
31	John Walter.	Edmonton and Strathcona.	1289	"	"
32	Alex. Smith.	"	1335	"	"
33	The North West Lumber Co.	"	1340	"	"
34	John Walter.	Edmonton and Strathcona.	1353	"	As above.
35	D. J. Dunn.	Berth.	1394	"	35
36	John Walter.	Edmonton and Strathcona.	Unmarked logs	"	As above.
37	D. R. Fraser & Co.	Edmonton	"	"	"

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under Government License for the Fiscal Year ending March 31, 1911.

Capacity per 10 hours.	Species of Timber cut.	LUMBER.			LOG COUNT.		
		Manu- factured.	Sold.	On hand.	Logs Cut.	Logs Manufac- tured.	Logs on hand.
		Ft. B.M.	Ft. B.M.	Ft. B.M.			
40 M	Spruce and poplar...	23,328	58,077			384	368
75 M each	"	273,259	273,259		4,759	4,559	200
As above.	"				6,000		6,000
14 M	Spruce and tamarac...	298,397	293,087	65,310	743	5,649	5,896
As above.	Spruce and poplar...	865	435,228			22	935
23 M	Spruce and tamarac...	1,833,824	2,076,207	200,000		36,298	
As above.	Spruce and poplar...	1,226,225	1,435,849		17,557	20,814	2,182
"	"	129,382	129,382		3,503	2,128	1,375
"	"	2,147,987	1,504,846	643,141	37,409	35,914	1,494
"	"	401,230	367,294	33,936	23,644	8,576	38,044
"	"	106,154	55,534	50,620	3,200	2,290	910
7 M	"	413,630	426,549	266,518	12,965	11,359	2,900
6 M	"	535,798	268,253	400,000	9,926	9,926	
20 M	"	450,000	234,137	215,863	25,100	9,100	16,000
As above.	"	1,084	74,722			18	8,220
	Tamarac...						
	Tamarac and spruce...				15,872		15,872
	Tamarac...						
	Tamarac and spruce...			96,000			
	"	90,390	90,390		2,783	2,783	
35 M	Spruce and poplar...				8,207		8,207
As above.	"		125,707				
"	Spruce	2,265,112	5,265,173	452,216	42,729	42,976	8,665
"	"	356,673	240,156	296,757	12,358	8,856	3,592
10 M	"		29,760				4
As above.	"	755,727	1,096,403		10,290	12,497	25,523
7 M	"	299,680	159,680	140,000	43,331	1,874	41,457
As above.	Spruce and tamarac...	2,223,501	1,717,081	515,782	36,665	36,856	10,895
"	Spruce	517,689	517,689		9,300	8,677	623
"	"		505,050				
"	"	61,085	61,085			1,469	10,929
"	Spruce and tamarac...	147,706	147,706				
"	Spruce				26,265		26,265
As above.	"	177,290	352,764			3,020	1,431
10 M	"	353,802	353,802		6,370	6,370	
As above.	"	15,382	15,382			253	
"	"	16,946	16,946			288	
		15,116,146	18,307,198	3,376,143	358,976	272,956	237,987

2 GEORGE V., A. 1912

SCHEDULE B.—Showing the Sawmills operating within the

No.	Average per Log.	RAILWAY TIES.			LATHS.		
		Manufactured.	Sold.	On hand.	Manufactured.	Sold.	On hand.
	Ft. B.M.						
1	60.7						
2	59.9						
3							
4	52.8						
5	39.3						
6	50.8						
7	58.6				384,000	384,000	
8	60.8						
9	59.8				805,630	805,630	
10	46.7						
11	46.3						
12	36.4					4,950	
13	53.9						
14	49.4	4,974	4,804				
15	60.2						
16							
17							
18							
19							
20	32.5						
21							
22							
23	52.7					5,750	
24	40.2						
25							
26	60.4						
27		39,965		39,965			
28	60.3	4,519	4,519		1,301,650	1,301,650	
29	59.6						
30							
31	41.5						
32							
33							
34	53.7						
35	55.5						
36	60.8						
37	58.8						
		49,458	9,323	39,965	2,491,280	2,501,780	

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Monton Agency under Government License, &c.—*Concluded.*

SHINGLES.			Average Price of Lumber per M. ft.	No. of Returns made.	Date of Last Return.	SUNDRIES.	
Manu- factured.	Sold.	On hand.				Manu- factured.	Sold.
			\$ cts.				
			16 00	1	Dec. 31, 1910 ...		
			16 00	1	" 31, 1910. ...		
				1	" 31, 1910.		
			19 00	4	Mar. 31, 1911 ...	Piling. 20,110	Piling. 14,260
			16 00	2	Dec. 31, 1910 ...		
			12 00	4	Mar. 31, 1911 ...	Fence posts. 2,034	Fence posts. 2,034
			16 00	1	Dec. 31, 1910 ...		
			16 00	3	" 31, 1910.		
			16 00	1	" 31, 1910.		
			20 00	4	Mar. 31, 1911 ...		
			12 00	4	" 31, 1911.		
			17 25	4	" 31, 1911.		
			17 00	4	" 31, 1911.		
			19 80	3	" 31, 1911.		
			16 00	1	Dec. 31, 1910 ...		
				4	Mar. 31, 1911 ...	Piling. 14,400	Piling. 14,400
				4	" 31, 1911.	Piling. 10,320	Piling. 10,320
				4	" 31, 1911.	Cordwood. 200	Cordwood. 200
				4	" 31, 1911.		
				3	" 31, 1911.	Piling. 38,580	Piling. 38,580
				3	Dec. 31, 1910 ...		
			15 00	1	" 31, 1910.		
			16 00	1	" 31, 1910.		
268,000	182,350	85,650	22 00	4	Mar. 31, 1911 ...		
				3	" 31, 1911.		
			16 00	4	" 31, 1911.		
			14 00	4	" 31, 1911.		
			16 00	1	Dec. 31, 1910 ...	Piling. 14,893	Piling. 14,893
			15 00	1	" 31, 1910.		
			15 00	1	" 31, 1910.		
			6 00	1	" 31, 1910.		
				4	Mar. 31, 1911 ...	Piling. 53,502	Piling. 53,502
				4	" 31, 1911.		
			16 00	1	Dec. 31, 1910 ...		
			18 00	3	Mar. 31, 1911 ...		
			16 00	1	Dec. 31, 1910 ...		
			15 00	1	" 31, 1910.		
268,000	182,350	85,650		95	Piling.	151,805	145,955
					Fence posts.	2,034	2,034
					Cordwood.	200	200

2 GEORGE V., A. 1912

SCHEDULE C.—Showing the Mills (including the Portable Mills) operating ending

Mill Owner.	Location of Mill.	Berth No.	Species of Timber Cut.	LUMBER.			LOG COUNT.		
				Manu- factured. Ft. B.M.	Sold Ft. B.M.	On hand. Ft. B.M.	Logs cut.	Logs Manu- fact'd.	Logs on hand.
Isaie Gagnon ..	Athabaska L'g	1298	Spruce..		186,000				
John Walter ..	Ed'n & Strat'ca	1306	Spr'ce & poplar.	1,346,998	118,636	1,228,340	75,807	22,590	64,207
do ..	"	Order in Council 10-7-07.	"	658,704	2,317,430	265,715		10,747	17,101
Edmonton Lumber Co.	Edmonton....	"	"		50,756				
Henry Meyer..	Berth.....	1308	"		100,460	30,000			
J. A. L. Mc- Dougall.	"	1309	"		16,750				
H. L. McInnis.	"	1329	Spruce & poplar.		90,000				
J. E. Gibeault.	"	1381	"	37,525	36,500	55,206		1,198	
H. A. Calder.	"	1477	"	965	965			16	1,032
John Walter ..	Ed'n & Strat'na	1486	"	281,577	3,424,294	260,048		4,582	2,364
do ..	"	1487	"	294	1,461,896	294		5	5,538
Louis Lagasse.	Berth.....	1489	"	33,000	30,000	53,000		600	
John Walter ..	Ed'n & Strat'na	1493	"	232,286	1,910,839	232,296		3,886	1,511
Hislop and Mc- Phee.	Entwistle....	1496	"		270,000				10,000
John Walter ..	Ed'n & Strat'na	1497	"	41,027	26,995	14,032		684	14,858
Short & White.	Berth.....	1505	"		15,152				
Emil Baril....	"	1546	"		20,000				
Frank Mearon.	"	1562	Spruce & poplar..						400
Henry Clemes.	"	1570	"	157,622	179,622		310	1,927	
Wm. Brunelle.	"	1571	"		70,160				
J. Batly....	"	1575	"		12,454				
W. J. Dent....	"	1579	"	12,000	42,000			500	
F. D. Pritchard	"	1592	"	13,763	20,302			171	
E. J. Dowsett.	"	1599	"		38,719	24,953			
Peter McPhee.	"	1602	"	40,000	527,523		1,100	1,100	
Jn. Zaczkowski	"	1604	"	243,685	105,184	436,368	4,020	3,520	900
W. J. Cum- mings.	"	1620	"	172,500	172,500		2,707	3,207	
Emil Baril....	"	1628	"	160,000	160,000			3,200	
John Anderson	"	1647	"	244,483	288,506	5,977	2,777	2,727	50
E. O. Hanke- dahl.	"	1652	"	102,698	65,512	37,186	6,204	1,300	4,904
P. Maisonneuve.	"	1653	"	164,154	154,154	10,000	3,675	3,675	
A. W. de H. Smith.	"	1654	"	250,542	240,542	10,000	2,249	1,787	462
W. S. Heffernan	"	1663	Spruce.	980,160	420,000	560,160	13,932	13,932	
F. X. Papineau	"	1664	Spr'ce & poplar..	28,497	28,497	1,760	1,760	1,160	600
Wm. Brunelle.	"	1691	"	200,000		200,000	9,000	6,500	2,500
S. D. Reed....	"	1719	"	64,553	60,000	4,553	1,800	1,600	200
W. J. Dent....	"	1743	"	112,517	62,917	50,000	3,500	3,500	
Empire Supply Co.	Edmonton and Strathcona.	Permit No. 140,029	"	299,272	293,664	5,608	8,977	4,928	4,049
Operations of Jno. Walter.	"								
Totals....				5,879,222	13,168,949	3,483,736	137,818	99,042	130,676

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within the Edmonton Agency, under Government Permits, for the Fiscal Year March 31, 1911.

Average per Log. Ft. B. M.	RAILWAY TIES.			Average price of lumber per M. feet.	No. of returns made.	Date of last return.	SUNDRIES.	
	Manu- factured	Sold.	On hand.				Manufactured.	Sold.
				\$ cts.				
				20 00	3	Nov. 30, 1910.....		
59 6				16 00	1	Dec. 31, 1910.....	Lath.	Lath.
61 3				16 00	1	" 31, 1910.....	426,000	426,000
				16 00	1	" 31, 1910.....		
				11 00	4	Mar. 31, 1911.....		
				9 00	3	Dec. 31, 1910.....		
				15 00	2	Mar. 31, 1911.....		
31 3				10 00	3	" 31, 1911.....		
60 3				16 00	1	Dec. 31, 1910.....		
61 4				16 00	1	" 31, 1910.....	Lath.	Lath.
58 8	1,500	7,820		16 00	1	" 31, 1910.....	52,741	52,741
55 0				8 00	4	Mar. 31, 1911.....		
59 7				16 00	1	Dec. 31, 1910.....		
				17 00	4	Mar. 31, 1911.....		
60 0				16 00	1	Dec. 31, 1910.....		
				16 00	4	Mar. 31, 1911.....		
				12 50	3	Dec. 31, 1910.....	12,000	Ft. B. M. burnt.
						" 31, 1910.....		
81 0				10 00	4	Mar. 31, 1911.....		
				15 00	3	Dec. 31, 1910.....		
24 0				9 00	4	Mar. 31, 1911.....	Disposed of to	Indians on Sad-
80 4				9 00	1	" 31, 1910.....	dle Lake Reserve.	
				15 00	4	" 31, 1911.....	Shingles.	Shingles.
33 3				17 50	4	" 31, 1911.....	313,500	195,750
69 2				15 00	4	" 31, 1911.....		
53 7				11 00	3	" 31, 1911.....	195,000	195,000
50 6				13 00	2	Sept. 30, 1910 ..	60,000	60,000
89 6				10 00	4	Mar. 31, 1911.....		
79 9				16 00	4	" 31, 1911.....		
44 9				13 00	4	" 31, 1911.....	61,500	52,500
				10 50	4	" 31, 1911.....		
70 2				25 00	2	" 31, 1911.....		
24 5				12 00	3	" 31, 1911.....		
30 7					2	" 31, 1911.....	Piling.	Piling.
40 3				11 00	2	" 31, 1911 ..		
32 2				10 00	1	" 31, 1911.....	1,328	1,328
60 9				16 00	1	Dec. 31, 1910 ..	4,892	4,892
						Lath.....	478,741	499,741
						Shingles.....	630,000	503,250
						Piling.....	6,220	6,220
	1,500	7,820			94			

2 GEORGE V., A. 1912

SCHEDULE D.—General Office Return of the Crown Timber Agency, Edmonton, for
fiscal year ending March 31, 1911.

Particulars.	Numbers, &c.	As com- pared with previous year.	As com- pared with previous year.
		Increase.	Decrease.
Letters received.....	Included in	Dominion Lands Return.	
Letters written.....	16,218	"	"
Permits subject to dues issued.....	398	61	
Free permits issued.....	1,387		63
Seizures made.....	41		42
Mill returns received and verified.....	600		26
Mills operating under government license.....	17	10	
" " permits.....	20	3	
Quantity of lumber manufactured, under license.....	15,116,146	8,295,150	
" " sold.....	18,307,198	8,275,078	
" " on hand.....	3,376,143		2,670,148
Average price at which lumber sold.....	\$16 00		
Hay permits issued.....	494	217	

SESSIONAL PAPER No. 25

No. 29.

REPORT OF THE CROWN TIMBER AGENT AT CALGARY.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS AND CROWN TIMBER OFFICE,
CALGARY, ALBERTA, May 8, 1911.

J. W. GREENWAY, Esq.,
Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to inclose herewith the following statements for the twelve months ending March 31, 1911.

Schedule 'A,' statement of receipts on account of crown timber, covering the period referred to, amounting to \$32,070.95.

Schedule 'B,' showing the sawmills within the Crown Timber Agency in operation under government license to March 31, 1911.

Schedule 'C,' showing the portable sawmills operated under permit to the said date.

Schedule 'D,' general office work.

You will observe that the quantity manufactured from licensed berths during the twelve months amounted to 18,035,498 ft. B.M., quantity sold 15,382,556 ft. B.M., manufactured by portable mills under permits 4,134,344 ft. B.M. lumber, quantity sold 3,255,584 ft.; total quantity on hand, 10,183,758 ft.

In addition to the 22,169,842 ft. B.M. manufactured as above stated, there has probably been about 150,000,000 ft. brought into this province from the province of British Columbia, but apparently nothing has been imported from the United States.

The lumber trade would appear to be in a prosperous condition.

I would estimate that the log crop amounted to 19,164,000 ft., in addition to say 9,120,000 ft., estimated as being the quantity left over from the cut of 1909 and 1910, which will make 28,284,000 ft., which the mill owners will require to manufacture into lumber during the season.

I may add that \$15.77 per thousand ft. B.M. is the average price at which the lumber taken from licensed and permit berths sold during the past year.

Your obedient servant,

J. R. SUTHERLAND,

Crown Timber Agent.

2 GEORGE V., A. 1912

SCHEDULE A.—Statements of Receipts from Crown Timber Agency at Calgary for
Fiscal Year ending March 31, 1911.

Month.	Ground rent under license.	Royalty dues under license.	Permit fees, dues and rental.	Seizures.	Grazing Lands Rentals.	Hay Permits Fees and Dues.	Total.
1910.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
April	509 62	2,728 35	2,722 41	...	425 87	25 40	6,411 65
May	606 45	...	230 12	...	545 12	6 50	1,388 19
June	251 26	86 98	83 49	...	1,343 63	46 60	1,811 96
July	528 15	1,623 44	226 33	...	324 44	126 20	2,828 56
August	8 93	9 38	122 97	...	6 36	98 05	245 69
September .....	...	...	27 95	1 25	106 77	3 90	263 62
October	741 82	1,336 98	321 19	310 21	590 93	5 60	3,506 73
November	953 77	2,041 21	504 72	...	203 07	...	3,702 77
December .....	...	...	71 52	10 02	500 23	...	581 77
1911.							
January	26	1,362 16	1,118 09	...	501 86	...	2,982 37
February .....	...	2 99	115 40	25	187 13	...	305 77
March .....	...	...	288 92	...	85 43	...	384 35
Totals.	3,000 26	9,191 49	5,843 11	445 48	4,820 84	312 25	24,213 43
Amount paid at Head Office. ....	...	...	...	...	...	...	7,857 52
							32,070 95

Certified correct,

T. W. BRYANT,

Acting Agent Dominion Lands.

SESSIONAL PAPER No. 25

SCHEDULE B.—Showing the Sawmills operating within the Calgary Agency under Government License for the Fiscal Year ending March 31, 1911.

No.	Mill Owner.	Location of Mill.	Berth No.	Kind of Power.	Horse Power.	Capacity per 10 hours.	Species of Timber cut.	LUMBER.		
								Manu- factured Ft. B.M.	Sold Ft. B.M.	On hand Ft. B.M.
1	Vernon N. De Mille.	Priddis	1218	Steam.	20	8,000	Spruce.	53,637	22,978	67,286
2	McDonald, McDonald & Frith.	Blairmore	1157	"	100	30,000	Fir and spruce			
3	Messrs. Carter & McEwan.	Red Deer	1100	"	75	30,000	Spruce and pine.	2,513,549	2,316,580	448,969
4	Fau Claire & Bow River Lbr. Co.	Calgary	468	"	100	35,000	Fir, spruce and pine.			
5	Linclham Lumber Co.	Okotoks	1292	"	45	15,000	"			
6	Pennyfather, Grant & Great West Lumber Co.	Red Deer	253	"	75	30,000	Spruce and pine.	2,513,652	2,316,580	1,824,655
7	Thomas Quigley.	Cochrane.	1249	"	40	10,000	"	725,000	716,000	40,000
8	Fau Claire & Bow River Lbr. Co.	Calgary	318 E. F. H. J. & 417 K.	"	100	35,000	Fir, spruce and pine.	5,009,053	4,580,053	3,433,992
9	Linclham Lumber Co.	High River.	579	"	80	30,000	"	3,174,034	887,628	2,286,306
10	"	"	1429	"	80	30,000	"	6,250	6,250	
11	"	Okotoks	1327	"	45	15,000	"			
12	"	"	1384	"	45	15,000	"			
13	Hon. Peter McLaren.	Blairmore	29 A	"	100	50,000	Fir and spruce.	3,283,243	3,323,281	106,877
14	Pennyfather, Grant & Great West Lumber Co.	Red Deer	252	"	75	30,000	"	757,080	1,213,456	
15	Linclham Lumber Co.	Okotoks	569	"	45	15,000	"			
								18,035,498	15,382,556	8,258,145

2 GEORGE V., A. 1912

SCHEDULE B.—Showing the Sawmills operating within the Calgary Agency under Government License, &c.—*Concluded.*

No.	LOG COUNT.			Average per Log Ft. B.M.		LATHS.		Average Price of Lumber per M. feet.	Number of Returns made.	Date of Last Return.	Remarks.
	Logs Cut.	Logs Manufact'd.	Logs on hand.			Manu- factured.	Sold.				
1	8,378	1,781	18,647	30.11	.....	.....	.....	\$ cts.	3	Dec. 31, '10	
2	17,165	.....	34,327	.....	.....	.....	.....	15 00	4	March 31, '11	
3	51,360	31,947	92,260	48.38	.....	.....	.....	18 45	4	" 31, '11	
4	6,394	.....	71,041	.....	.....	.....	.....	.....	4	" 31, '11	
5	102,097	.....	102,097	.....	.....	.....	.....	.....	4	" 31, '11	
6	52,754	33,432	74,001	70.94	.....	1,564,556	1,564,556	18 45	4	" 31, '11	
7	10,031	10,485	10,485	69.14	.....	.....	.....	19 00	4	" 31, '11	
8	77,609	181,736	121,473	27.55	.....	.....	.....	21 44	4	" 31, '11	
9	121,976	68,536	122,762	46.29	.....	131,500	131,500	17 88	4	" 31, '11	
10	.....	125	.....	50 00	.....	.....	.....	17 01	4	" 31, '11	
11	3,319	.....	21,539	.....	.....	.....	.....	.....	4	" 31, '11	
12	.....	.....	50,562	.....	.....	.....	.....	.....	4	" 31, '11	
13	33,690	48,341	96,215	67.91	.....	.....	.....	16 83	4	" 31, '11	
14	.....	8,927	.....	84.80	.....	.....	.....	18 36	4	" 31, '11	
15	.....	.....	500	.....	.....	.....	.....	.....	4	" 31, '11	
	484,373	407,350	786,841	.....	.....	1,096,050	1,696,050	17 40	59		

8957 posts cut and 10,224 sold.
317 posts cut and sold.

See this office letter 23 November 1910
inclosing letter from W. S. Waugh re
9,483 logs reported in excess.
584,486 lin. ft. mining props mtd. and sold.
Perth cancelled.

J. R. SUTHERLAND, *Crown Timber Agent.*

SESSIONAL PAPER No. 25

SCHEDULE C.—Showing the Mills (including the Portable Mills) operating within the Calgary Agency under Government Permits, for the Fiscal Year ending March 31, 1911.

No.	Mill Owner.	Location of Mill.	Berth No.	Species of Timber Cut.	LUMBER.		
					Manufact'd Ft. E.M.	Sold Ft. E.M.	On hand Ft. E.M.
1	W. R. Dobbie.....	On Berth.....	1326	Spruce.....	244,318	383,196	10,461
2	Joseph Fisher.....	Millerville.....	1358	Spruce.....	.....	.....	189,100
3	Arthur G. Spooner.....	On Berth.....	1406	Spruce.....	125,000	177,400	110,694
4	Charles Stobbs.....	".....	1386	Spruce and fir.....	69,400	141,163	.....
5	W. H. Gibson.....	".....	1321	Spruce and pine.....	637,479	782,479	.....
6	Lincoln Lumber Company.....	High River.....	1428	Pine.....	655,470	655,470	.....
7	P. W. Hallverson.....	Black Diamond.....	1615	Spruce.....	233,179	231,865	141,073
8	N. T. Hagen.....	On Berth.....	1586	Spruce.....	19,264	68,495	44,327
9	John Schröder.....	".....	1587	Spruce and pine.....	131,760	84,655	146,765
10	F. DuRocher.....	".....	1610	Spruce.....	217,307	199,422	17,885
11	Royal Collieries.....	".....	1624	Spruce.....	313,972	161,575	152,397
12	Great West Lumber Company.....	Red Deer.....	Permit 116, 152	Spruce and pine.....	.....	.....	.....
13	Foothills Lumber Co.....	On Berth.....	1655	Spruce and pine.....	375,181	109,041	266,140
14	G. R. Pelletier.....	".....	1711	Spruce and pine.....	298,025	145,670	143,335
15	Adam Stums.....	".....	531	Spruce and pine.....	45,000	45,000	.....
16	Bau Claire & Bow River Lumber Co.....	Calgary.....	1708	Fir, spruce and pine.....	627,100	.....	627,199
17	Carbondale Lumber Co.....	On Berth.....	1746	Spruce and pine.....	80,392	59,553	20,839
18	Holmes & Sherwood.....	".....	1673	Spruce.....	50,398	.....	50,398
					4,134,344	3,255,584	1,925,613
					1,902	used 13,972	1,902
					59,064	.....	45,112
					1711	Mining props.....	.....
					Permit 126, 307	".....	.....
					On Berth.....	.....	.....
					".....
					G. R. Pelletier.....	.....	.....
					J. R. Grant.....	.....	.....

2 GEORGE V., A. 1912

SCHEDULE C.—Showing the Mills (including Portable Mills) operating within the Calgary Agency under Government Permits, &c.—*Con.*

No.	Log Count.		Average price per Log. Ft. B. M.	Average price of Lumber per M. ft.	Number of Returns made.	Date of last Returns.	Remarks.
	Logs Cut.	Logs Manufactured Logs on hand.					
1	358	3,256	75.02	17 61	3	December 31, 1910	
2					4	March 31, 1911	96 logs stolen according to permittee's statement.
3		4,400	28.40	18 00	4	" 31, 1911	
4		982	70.67	12 88	4	" 31, 1911	
5		7,355	89.39	11 00	2	September 30, 1910	Berth cancelled.
6	4,127	13,487	48.60	17 43	4	March 31, 1911	1,271 fence posts mf. and sold.
7		3,575	65.22	16 04	4	" 31, 1911	
8		3,325	59.27	12 00	4	" 31, 1911	
9		2,000	65.88	12 12	4	" 31, 1911	
10	8,706	6,366	33.10	11 50	4	" 31, 1911	
11	13,953	6,193	40.25	13 00	4	" 31, 1911	
12		7,558			4	" 31, 1911	
13	6,807	6,807	55.11	14 91	4	" 31, 1911	
14	16,060	6,594	43.83	16 05	2	" 31, 1911	
15	985	985	45.68	12 90	1	December 6, 1910	Berth cancelled.
16	19,566		32.05		2	March 31, 1911	Logs sent in bush, not yet sold, which accounts for 19,566 logs still on hand.
17	10,402	1,000	50.24	11 00	1	March 31, 1911	
18	3,591	7.42	67.92		2	" 31, 1911	
	84,595	66,474		13 94	57		
	4,703	1,116		3,587			

J. R. SUTHERLAND, *Crown Timber Agent.*

SESSIONAL PAPER No. 25

SCHEDULE D.—General Office Return of the Crown Timber Agency, Calgary, for
Fiscal Year ending March 31, 1911.

Particulars.	Number &c.	AS COMPARED WITH PREVIOUS YEAR.		Remarks.
		Increase.	Decrease.	
Letters received.....	77,689	20,686	.....	Including Dom. Lands.
Letters written.....	77,650	21,437	.....	" "
Permits subject to dues issued.....	22	.....	.....
Free permits issued.....	543	.....	40	
Seizures made.....	5	.....	4	
Mill returns received and verified.....	116	11	.....
Mills operating under Government license	15	.....	2	
" " " permits	18	2	.....
Quantity of lumber manufactured, under license.....	18,035,498	.....	592,053	
Quantity of lumber sold, under license..	15,382,556	.....	8,312,661	
" " on hand " ..	8,258,145	2,332,487	.....
Average price at which lumber sold.....	\$15 77	.....	87	
Hay permits issued.....	277	162	.....

J. R. SUTHERLAND,

Crown Timber Agent.

2 GEORGE V., A. 1912

No. 30.

REPORT OF THE CROWN TIMBER AGENT AT PRINCE ALBERT.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

PRINCE ALBERT, SASKATCHEWAN, April, 11, 1911.

J. W. GREENWAY, Esq.,
Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to submit the annual report for this office for the fiscal year ending March 31, 1911. Attached hereto you will find the following detailed statements:—

Schedule 'A,' being a statement showing receipts from timber, grazing and hay on Dominion Lands.

Schedule 'B,' being a statement showing sawmills operating under government license.

Schedule 'C,' being a statement showing sawmills operating under government permits.

Schedule 'D,' being a statement of the general office work performed.

The sales of lumber manufactured under license amount to 33,944,805 feet board measure, the average price being \$20.57½ per thousand feet. This you will see is an increase of \$2.10½ per thousand feet over last year's selling price. During the past winter 592,737 pieces have been manufactured in excess of the quantity taken out during the preceding logging season. This increased cut, together with the fact that two new mills are being erected, one at Big River and one at The Pas Mission, will mean a large increase in the manufacture of spruce lumber in this district during the coming year. The mill now in the course of erection at Big River is to have a capacity of 200,000 feet in ten hours and the mill at The Pas Mission will be as large, if not larger.

The number of timber permits issued is 1,149, as against 1,033 for the preceding year. These permits cover the following quantities of lumber:—

Lumber, feet B.M., 17,749,525; logs, lineal feet, 162,484; cordwood, 28,212 cords; fence posts, 249,117; fence rails, 91,488; poles, 179,768; shingles, 8,000; railway ties, 6,500.

The number of seizures made during the year was 38, covering the following quantities of timber:—

Lumber, feet B.M., 5,530,291; logs, lineal feet, 8,388; railway ties, 6,125; cordwood, 470 cords; fence posts, 1,035; fence rails, 1,000.

The number of hay permits issued for the year on Dominion Lands amounted to 256, covering 3,898½ tons.

The logging season just closed has been a successful one and the coming year will bring a decided increase both in the logging and manufacturing of spruce lumber in this district, which will increase the revenue and work in connection with this office.

Your obedient servant,

GEO. L. DEMPSTER,

Crown Timber Agent.

SESSIONAL PAPER No. 25

SCHEDULE A.—Statement of Receipts from Crown Timber Agency at Prince Albert for fiscal Year ending March 31, 1911.

Mouth.	Bonus under license.	Ground rent under license.	Royalty dues under license.	Permit fees, dues and rental	Seizures	Hay permits fees and dues.	Totals.
1910.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
April.....		6,668 32	5,399 67	1,976 51	1,953 57	169 20	16,147 27
May.....		1,841 75		185 93	10 00	50 30	2,087 98
June.....	1,400 00	190 04		1,294 60	29 25	51 26	2,965 09
July.....		14 83	1,032 15	258 10	65 20	129 00	1,499 28
August.....			4,316 59	24 90	519 46	92 70	4,947 65
September.....		302 05	83 35	109 25		21 45	516 10
October.....			853 32	276 05	157 74	3 10	1,290 21
November.....		359 73	5,097 25	893 60	71 50	2 30	6,334 38
December.....				928 80	120 07	5 70	1,054 57
1911.							
January.....			3,709 50	1,289 76	134 60	4 70	5,138 56
February.....		95 03	669 63	861 61	327 70	4 00	1,957 97
March.....			98 23	894 70	1,465 51	30	2,458 74
Totals.....	1,400 00	9,471 75	21,253 69	8,883 81	4,854 60	533 95	46,397 80
Amounts collected Head Office—							
1910.							
April.....							
May.....		58 30					58 30
June.....							
July.....						1 50	1 50
August.....							
September.....		68 65					68 65
October.....							
November.....							
December.....							
1911.							
January.....							
February.....							
March.....							
Totals.....		126 95				1 50	128 45

GEO. M. ULLYOT,

Acting Crown Timber Agent.

2 GEORGE V., A. 1912

SCHEDULE B.—Showing the Sawmills operating within the Prince Albert Agency under Government License for Fiscal Year ending March 31, 1911.

Number.	Mill Owner.	Location of Mill.	Berth No.	Kind of Power.	Horse Power.	Capacity per 10 hours.	Species of Timber cut.	LUMBER.		
								Mann- factured.	Sold.	On hand.
1	Prince Albert Lumber Co.	Prince Albert	9 Block 1.	Steam	1,200	100,000	Spruce	Ft. B. M.	Ft. B. M.	Ft. B. M.
2	"	"	9 Block 2.	"	1,200	100,000	"	958,289	958,289	"
3	"	"	9 Block 3.	"	1,200	100,000	"	4,290,008	2,883,971	1,406,037
4	"	"	474	"	1,200	100,000	"	"	"	"
5	"	"	598	"	1,200	100,000	"	5,332,258	5,332,258	"
6	"	"	633	"	1,200	100,000	"	6,704,008	6,704,008	"
7	"	"	698	"	1,200	100,000	"	"	"	"
8	"	"	729	"	1,200	100,000	"	3,232,022	3,232,022	"
9	"	"	945	"	1,200	100,000	"	"	"	"
10	"	"	946	"	1,200	100,000	"	4,262,196	4,262,196	"
11	Sturgeon Lake Lumber Co.	Sturgeon Lake.	848	"	200	35,000	"	285,000	285,000	"
12	"	"	1011	"	200	35,000	"	322,223	322,223	332,223
13	Saskatchewan Lumber Co.	Crooked River	961	"	250	35,000	"	5,561,126	4,572,457	4,743,007
14	"	"	477	"	250	35,000	"	"	"	"
15	"	"	1640	"	250	35,000	"	"	"	"
16	Big River Lumber Co.	Big River	1045	"	1,600	200,000	"	2,386,705	2,034,909	365,200
17	C. R. Smith	"	1274	"	"	"	"	"	"	"
18	Archie Ballantine	"	1366	"	"	"	"	"	"	"
Total								33,044,805	33,656,201	6,846,476

SESSIONAL PAPER No. 25

SCHEDULE B.—Showing the Sawmills operating within the Prince Albert Agency under Government License, &c.—*Concluded.*

Number.	LOG. COUNT.			Average per Log.	RAILWAY TIES.		LATHS.			Average Price of Lumber per M. ft.	Number of Returns made.	Date of Last Return.
	Logs cut.	Logs Manu- factured.	Logs on hand.		Sold.	On hand.	Manu- factured.	Sold.	On hand.			
1	7,800	14,706	7,800	66						20 35	4	March 31, 1911
2		65,346	758	65			998,250	908,250		20 29	4	" 31, 1911
3	298,743	91,037	306,759	65			1,335,580	1,534,750		20 46	4	" 31, 1911
4	112,720	100,246	142,720	67			1,628,300	1,628,300		20 54	4	" 31, 1911
5	49,749	49,000	49,749	65			738,700	738,700		20 35	4	" 31, 1911
6	123,360	121,373	123,360	65			975,200	975,200		20 57	4	" 31, 1911
7	121,373	65,380	121,373	65						23 02	4	" 31, 1911
8	45,061	3,142	45,061	90						24 00	4	" 31, 1911
9	30,438	4,079	26,359	81						20 46½	4	" 31, 1911
10	67,824		139,875	82				24,000	1,390,750	15 71	4	" 31, 1911
11	43,690		43,690								4	" 31, 1911
12	632,271	39,012	822,979	61	144,635						4	" 31, 1911
13	35,000					50,000					4	" 31, 1911
14												
15												
16												
17												
18	1,568,629	432,548	1,855,606	78	144,635	50,000	4,476,220	5,890,400	1,390,750	20 57½		

GEO. L. DEMPSTER, *Crown Timber Agent.*

2 GEORGE V., A. 1912

SCHEDULE C.—Showing the Mills (including the Portable Mills)
Permits, for the Fiscal Year

Number.	Mill Owner.	Location of Mill.	Berth No.	Species of Timber cut.	LUMBER.		
					Manufactured.	Sold.	On hand.
					Ft. B.M.	Ft. B.M.	Ft. B.M.
1	Carrot Riv. Lumb. Co.	S. W. 2-48-13 2.....	1554	Spruce.....			215,926
2	George Garner.....	30-51-4 3	1561	"	438,256	225,058	143,300
3	Biss Bros.....	Turtle Lake.....	1556	"	199,639	300,182	116,000
4	A. Marcotte.....	Hudson Bay Jun. 2	1580	"			
5	W. H. Morrow.....	New Osgoode.....	1590	"	40,000	57,588	60,732
6	Jas Otte	S. E. 10-50-4 3.....	1605	"			
7	Charles Shaw.....	Melfort	1611	"	50,000	50,300	49,988
8	Henry Kendrickson.	Kinistino.....	1617	"			2,771
9	R. E. Smythe.....	Aldina.....	1627	"	66,880	74,300	1,700
10	H. R. Knudson.....	25-40-15 2.....	1630	"	348,897	322,569	51,998
11	M. W. Cazakoff.....	4-36-31 1.....	1641	"	94,136	29,570	10,560
12	John Pring.....	Tisdale	1725	"			
13	Cowan Construct. Co.	Mistatini.....	1702	"			
14	Saskatchewan Lumber Co.	Crooked River.....	1703	"			
15	John Gayleg.....	S. E. 17-14-4 2.....	1741	"			
16	Alfred Blanchette.....	N. E. 17-44-4 2	1742	"			
17	Wm. H. Smith	S. E. 1-45-4 2.....	1760	"			
18	Johnston & Brostrom	Prince Albert.....	876	"	235,000	148,079	195,369
Totals....					1,472,808	1,207,646	848,354

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operating within the Prince Albert Agency, under Government
ending March 31, 1911.

LOG COUNT.			Average per log.	Average Price of lumber per M. feet.	Number of Re- turns made.	Date of Last Return.	Remarks.
Logs cut.	Logs manufac- tured.	Logs on hand.					
			Ft. B.M.	\$ cts.			
13,240	8,076	11,720	54	18 00	1	June 30, '10..	Berth cancelled, 21-10-10.
	7,550	4,239	27	20 83	3	Dec. 31, '10..	" 14-12-10.
		300			3	" 31, '10..	" 25-11-10.
3,013	1,040	1,973	38	12 50	3	" 31, '10..	" 25-2-11.
	1,000		50	19 05	3	Dec. 31, '10..	Shingles only manufactured. Berth cancelled, 16-12-10.
	1,630	820	41	16 50	3	Dec. 31, '10..	" 1-3-11.
8,368	7,499	1,042	46	13 16	4	March 31, '11..	
40	900	400					
2,000		2,000			1	Dec. 31, '10..	
1,250		1,250			1	" 31, '10..	
					1	" 31, '10..	
						No retur. mad.	Cordwood Berth only.
						"	"
18,000	7,100	18,056	33	20 52	4	Mar. 31, '11..	"
45,911	34,795	41,800	42	17 22	..		

GEO. L. DEMPSTER,

Crown Timber Agent.

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SCHEDULE D.—General Office Return of the Crown Timber Agency, Prince Albert,
for Fiscal Year ending March 31, 1911.

Particulars.	Number, &c.	As com- pared with previous year.	As com- pared with previous year.
		Increase.	Decrease.
Letters received.....	26,955	1,701	
Letters written.....	22,582		3,966
Permits subject to dues issued.....	307	55	
Free permits issued.....	842	61	
Seizures made.....	38		17
Mill returns received and verified.....	300	11	
Mills operating under government license.....	4	8	
" " " permits.....	18	4	
Quantity of lumber manufactured, under license.....	33,944,805		7,721,374
" " sold under license.....	33,656,201		22,850,353
" " on hand, under license.....	6,846,476	26,619	
Average price at which lumber sold.....	\$29.57½	209½	
Hay permits issued.....	374	148	

No. 31.

REPORT OF THE CROWN TIMBER AGENT AT NEW WESTMINSTER.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

NEW WESTMINSTER, B.C., May 2, 1911.

J. W. GREENWAY, Esq.,

Commissioner of Dominion Lands,

Ottawa, Ont.

SIR,—I have the honour to submit herewith the annual report of this agency for the fiscal year ended March 31, 1911, to which are appended the following classified statements:—

Schedule 'A,' showing the revenue collected on account of timber on Dominion Lands.

Schedule 'B,' giving a list of the respective holders of timber berths held under license and who are conducting operations, together with the extent of such operations.

Schedule 'D,' general office return of the work performed within the agency.

The revenue collected for the year amounts to \$120,515.91. During the early part of the year, a new office was opened at Revelstoke, and the revenue from lands east of the dividing line between townships 15 and 16, ranges 22 to 29, west of the 6th meridian, is collected by the latter agency instead of this office, as in former years.

During the year three timber berths were sold at public auction, realizing in each case considerably more than the upset price, and a total of \$34,536.12 was re-

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ceived on this account, which, however, includes some unpaid balances from Berths sold in the previous year. For ground rents the sum of \$31,601.54 was collected. Royalty dues yielded \$34,963.58; permit fees, \$9,299.68, and timber seizures \$10,097.18. The extent of the operations during this period on lands under license, shows a decrease in saw logs of 66,878,350 feet B.M. and is also explained by the reduced area now under license within this agency. In this connection, however, I may say that lumbermen still continue to conserve their holdings of Dominion timber, which is considered a safe and profitable investment, well protected during the summer months by an efficient corps of fire rangers employed by the department and working under the direction of this office. I have pleasure in reporting that the lumbering industry (in conjunction with other industries) continued prosperous throughout the whole year, and the prospects for the current year are very bright indeed. The average selling price of lumber was \$14 per thousand feet B.M. The number of permits issued to settlers during the year was twenty, under which authority was given to cut the following timbers:—1,100,000 feet B.M. of saw logs, 3,465 cords of shingle bolts, and 57 cords of wood. On lands sold where timber is reserved to the Crown, fourteen (14) permits were issued to the holders of such lands to remove the following timber under authority of section 14 of the regulations, for the survey, administration, disposal and management of Dominion lands within the railway belt: 6,293,848 feet B.M. of saw logs, 2,693 cords of shingle bolts, and 5,000 pieces of railway ties. There are only a few of such parcels of land remaining which contain timber of commercial value, as settlement demands the removal of the timber and the subdivision of the land into small holdings, which are being rapidly taken up by actual settlers. During the year forty-three (43) seizures were made of timber cut in trespass, the actual quantity being as follows:—10,103,222 feet B.M. of saw logs, 3,732½ cords of shingle bolts, 1,680 cords of wood, 10,491 lineal feet of piling, 30,621 lineal feet of telegraph poles, 12,813 pieces of railway ties and 115 pieces of roof poles.

Schedule 'D,' shows the work of the office to compare favourably with former years, and during the year the staff has continued to take an active interest in the work.

Your obedient servant,

EDWARD WALMSLEY,

Acting Crown Timber Agent.

SCHEDULE A.—Statement of Receipts from Crown Timber Agency at New Westminster, for Fiscal year ending March 31, 1911.

Month.	Bonus under license.	Ground rent under license.	Royalty dues under license.	Permit fees, dues and rental.	Seizures.	Grazing lands rentals.	Totals.	Remarks.
1910.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	% cts.	\$ cts.	
April.....	6,073 97	10,344 25	3,415 47	55 25	22 50	...	19,911 44	
May.....		12,707 74	13,914 63	4,285 27	691 90	...	31,599 54	
June.....	5,193 95	1,328 59	7,503 14	845 43	482 59	...	15,953 70	81.75 Rent on pt. T.B. 282.
July.....	6,157 50	1,919 07	951 84	537 40	356 75	...	9,922 56	
August.....	1,639 05	558 75	1,718 29	383 80	146 80	...	4,446 69	
September.....	3,613 56	1,608 52	211 45	175 50	1,755 02	...	7,364 05	
October.....	21		1,864 03	211 25	318 28	...	2,393 77	
November.....	6,250 10	432 62	1,925 73	125 50	3,461 89	...	11,315 34	
December.....	5,157 78		999 92	1,125 05	1,223 15	...	8,565 90	
1911.								
January.....		32 00	1,956 13	2 75	646 36	...	2,637 24	
February.....		48 87	37 30	125 25	252 28	...	463 70	
March.....	450 00	113 37	1,865 65	1,302 23	410 41	...	3,641 66	
Totals.....	34,536 12	29,713 78	34,963 58	9,174 08	9,767 43	...	118,153 59	
Collected at Head office—1910.								
April.....		59 42				...	59 42	
May.....		663 78				36	664 14	
June.....		974 91		125 00		5 00	1,104 91	
July.....						...		
August.....						...		
September.....		97 85			320 00	...	417 85	
October.....					9 75	...	9 75	
November.....		67 24				...	67 24	
December.....						4 16	4 16	
1911.								
January.....						40	40	
February.....						7 89	7 89	
March.....		24 56					24 56	
Totals.....		1,887 76		125 00	329 75	17 81	2,360 32	
Grand total.....							118,153 59	
							130,515 91	

Note.—Bonuses are collected at Head Office.

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SCHEDULE B.—Showing the Sawmills operating within the New Westminster, B.C., Agency, under Government License for the Fiscal Year ending March 31, 1911.

Number.	Mill Owner.	Location of Mill.	Berth No.	Kind of Power.	Horse Power.	Capacity per 10 hours.	Species of Timber cut.	LUMBER.	
								Manufactured.	Sold.
								Ft. B. M.	Ft. B. M.
1	P. H. Heaps & Co.	Ruskin.....	X. and 314	Mill destroyed by fire		125,000	Fir, cedar and hemlock....	6,125,131	6,125,131
2	Harrison Riv. Mills T. & T. Co.	Harrison River....	248 and 63	Stream.....	750	125,000	" " " "	631,945	631,945
3	Rat Portage Lumber Co.	Vancouver.....	281, 432 and 534	" " " "	750	125,000	" " " "	2,079,386	2,079,386
4	Western Canada Power Co.	Slave River.....	W. ½ Sec. 19 T ₁ 18 E. C. M.	" " " "	12	5,000	" " " "	1,294,618	1,294,618
5	B. C. Mills T. & T. Co.	New Westminster.	394 and 86	" " " "	450	60,000	" " " "	1,456,940	1,456,940
6	Brunette Sawmill Co.	Sapperton.....	" B " and " L "	" " " "	450	90,000	" " " "	2,031,331	2,031,331
7	Campbell River Lumber Co.	Hazelmere.....	" O " and 299	" " " "	125	40,000	" " " "	2,175,867	2,175,867
8	Vancouver Power Co.	No mill.....						3,256,614	3,256,614
9	D. A. Johnson.....	" " " "	450	" " " "			" " " "	941,317	941,317
10	W. R. Spencer.....	" " " "	317, 279 and 213	" " " "			Fir, cedar and spruce....	1,404,621	1,404,621
11	M. G. Jeffries.....	" " " "	368	" " " "			Cedar.....	131,914	131,914
12	Mrs. Sao Mikuni.....	" " " "	246	" " " "			Fir, cedar and hemlock....	139,500	139,500
13	U. Tamoki.....	" " " "	494	" " " "			Cedar.....	254,531	254,531
14	James & Eberts.....	" " " "	36	" " " "			Cottonwood.....	139,500	139,500
15	J. D. Kennedy.....	" " " "	223	" " " "			Fir, cedar and hemlock....	254,531	254,531
16	Neil Mitchell.....	" " " "	453	" " " "			Fir and cedar.....		
17	Brittingham & Young Co.	" " " "	339 and 510	" " " "			Fir.....		
18	John Oliver.....	" " " "	334	" " " "				29,823,725	29,823,725

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SCHEDULE B.—Showing the Sawmills operating within the New Westminster, B.C., Agency, under Government License, &c.—*Con.*

Number.	LOG COUNT.		Average per log.	RAILWAY TIES.		PILING LINEAL FEET.		SHINGLES BOLTS.		Average price of Lumber per M. ft.	No. of Returns made.	Date of Last Return.	Remarks.
	Logs cut.	Logs Manufactured.		Manu- factured.	Sold.	Manufac- tured.	Sold.	Manufac- tured.	Sold.				
			Ft. B.M.							\$	cts.		
1	7,859	7,859	779			1,906	1,906	2,102	2,102	14 00	8	March 31, 1911.	
2	737	737	857					317	317	14 00	8	" 31, 1911.	
3	2,806	2,806	746							14 00	12	" 31, 1911.	
4											2	Dec. 31, 1910.	Reported as Seizures.
5	2,655	2,655	548							14 00	8	March 31, 1911.	
6	3,784	3,784	774							14 00	4	" 31, 1911.	Shingle bolts \$4.50 to \$5 p. ed. Rail- way ties 14c. each.
7	351	351	501	250	250			2,605	2,605	14 00	8	" 31, 1911.	Saw logs \$8 to \$9 p. m. ft., shingle bolts \$4.50 to \$5 per cord.
8	4,525	4,525	719					222½	222½		8	" 31, 1911.	Piling 10c. per lineal foot.
9						720	720				4	" 31, 1911.	Saw logs \$8 to \$9 p. m. ft., shingle bolts \$4.50 to \$5 per cord.
10	2,512	2,512	374					412½	412½		12	" 31, 1911.	
11	3,157	3,157	444					10	10		4	" 31, 1911.	Saw logs \$8 to \$9 per m. ft.
12								714	714		4	" 31, 1911.	Shingle bolts \$4.50 to \$5 per cord.
13	241	241	547					347½	347½		4	" 31, 1911.	Saw logs \$8 to \$9 per m. ft., shingle bolts \$4.50 to \$5 per cord.
14											4	" 31, 1911.	Shingle bolts \$4.50 to \$5 per cord.
15	93	93	1,500								4	" 31, 1911.	Saw logs \$8 to \$9 per m. ft., shingle bolts \$4.50 to \$5 per cord.
16	395	395	644					178	178		4	" 31, 1911.	Piling 10c. per lineal ft.
17						2,581	2,591				8	" 31, 1911.	"
18						29,065	29,065				4	" 31, 1911.	"
	29,115	29,115		250	250	34,272	34,272	6,908½	6,908½		...		

963½ cords of wood manufactured and sold.

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SCHEDULE D.—General Office Return of the Crown Timber Agency, New Westminster, B.C., for fiscal year ending March 31, 1911.

Particulars.	Number, &c.	As compared with previous year.	As compared with previous year.
		Increase.	Decrease.
Letters received.....	3,151		2,332
Letters written.....	4,411		3,584
Permits subject to dues issued.....	45		18
Free permits issued.....	Nil.		6
Seizures made.....	43	12	
Mill returns received and verified.....	848		541
Mills operating under government license.....	7		11
" " " permits.....	Nil.		Nil.
Quantity of Lumber manufactured, under license.....	20,823,725		66,878,350
" " " sold under license.....	20,823,725		96,211,697
" " " on hand, under license.....	Nil.		Nil.
Average price at which lumber sold.....	\$14 00		\$0 ^{2.5} / ₁₀₀
Hay permits issued.....	Nil.	Nil.	Nil.

No. 32.

REPORT OF THE CROWN TIMBER AGENT AT REVELSTOKE.

REVELSTOKE CROWN TIMBER AGENCY,

REVELSTOKE, BRITISH COLUMBIA, April 22, 1911.

J. W. GREENWAY, Esq.,

Commissioner of Dominion Lands,

Ottawa, Ont.

SIR,—Prospects are reported good from now on for large, quick sales of British Columbia high grade lumber. The outlook with regard to the inferior grades is not so good. For the latter, there is a steady demand in the prairie provinces as heretofore, but heavy shipments of common lumber are being rushed by American firms into Manitoba, Saskatchewan and Alberta, the natural market for the British Columbia output; consequently, the British Columbia people are not going to participate generally in the increased business impending to the extent that at one time was anticipated. Compelled, too, for financial reasons, to dispose of their stocks, these American firms are flooding the market and unduly keeping down prices. Some, it is affirmed, are even selling below cost, the prices realized in some cases being no more than seven to nine dollars per thousand at the mill, allowing for freight and other charges. The average price at which lumber sold during the year was \$17.92.

The logs cut this winter on Dominion and Provincial berths in British Columbia will probably exceed last winter's cutting by 25 per cent, last year's cut being estimated at 228,000,000 feet B.M., while the cutting this season is expected to approxi-

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mate 300,000,000. Due allowance must be made, however, for the fact that many of the lumbermen were compelled at times to shut down the camps this winter owing to the unusually heavy fall of snow, operations being seriously retarded during the months of January and February through this cause.

THE COLUMBIA RIVER LUMBER COMPANY.

The largest holders of timber berths in the Revelstoke district, with an area of some 700 square miles of Dominion timber, this firm did very little cutting during the late fall and early winter months, owing to the necessity for curtailment of operations through loss of mill at Golden by fire.

A new up-to-date mill with electric power drive, fireproof roof and other modern improvements is in course of erection at Golden, the headquarters of this firm, with a view to completion by about May 1, 1911, when it is expected that the cutting of their winter logs will commence, a fair average of which have been taken from Dominion berths. Indications point to a renewed activity on their part in the immediate future.

DOMINION SAWMILLS AND LUMBER LIMITED.

Formed last season out of the Mundy, Hood, Yale and Bowman companies, the holdings of this firm, including their provincial berths, cover an area of over 400 square miles, with large sawmills at Revelstoke, Taft and Three Valley, B.C. Originally at Three Valley, their headquarters are now at Revelstoke, B.C., where a large complete office, 50 x 100, 2½ stories high, is being built for the accommodation of some twenty clerks, it being expected that this number will eventually be employed to run their business, which is expected to increase largely from now on. It is reported on good authority that the Dominion Sawmills and Lumber, Limited, anticipate purchasing the timber interests of the Rogers Lumber Company of the Okanagan, the estimated value of which is over one million dollars.

REVELSTOKE SAWMILL COMPANY.

This firm, who were organized some seven years ago and also sold out their timber to the Dominion Sawmills Company, are now confining themselves to the retail trade, particularly since last July, when their Revelstoke sawmill burned. They removed in November last from Revelstoke to Calgary, Alberta, where they found it necessary to establish their offices in order to be closer to the base of the retail trade. It is not expected that the sawmill at Revelstoke will be rebuilt.

THE ARROW LAKES LUMBER COMPANY.

The Arrow Lakes Lumber Company, with large sawmills at Arrowhead and Kamloops, B.C., report that no operations took place on the berths held under license from the Dominion Government by their firm during the quarter ending March 31, 1911, their cutting this winter, apparently, being confined to provincial berths. A busy spring is predicted for the firm, whose mills at Arrowhead and Kamloops are running with day and night shifts.

THE A. R. ROGERS LUMBER COMPANY.

The above, who are the licensees of three berths in the Revelstoke district, have operated largely during the past year, their cutting on two of these berths approximating 25,000,000 feet B.M. of logs. They are experiencing a heavy demand at the present time for their products.

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NEW BERTHS.

Two new berths were sold at this agency during the year ended March 31, 1911, namely:—

Timber berth No. 538, situate in townships 22 and 21, range 1, west of the 6th meridian, containing an area of .11 of a square mile, the sale of which was applied for by the Dominion Sawmills and Lumber, Limited, who were the ultimate purchasers for \$2,280, the upset price being \$2,200.

Berth No. 540, situate in township 19, range 6, west of the 6th meridian, containing an area of 1.55 square miles, purchased for the upset price of \$5,620 by Messrs. A. R. Rogers Lumber Company, of Enderby, B.C., who applied for the sale.

INSPECTIONS.

Close attention is paid by the Revelstoke office to the inspection of the cutting, &c., on timber berths. The Crown Timber Inspector, who is making a systematic round of inspection of the camps within the district, reports that the cutting and scaling are carefully checked up, and the scalers enjoined to keep the camp books and other records in the manner prescribed. Comparison is duly made by him between these books and the actual cutting, as may be required from time to time, no discrepancies having occurred in this respect, so far. The inspector further reports that operations are being confined to limits within the berths, no trespasses of this nature having been found.

Regarding sub-clause 'E' of clause 17 of the regulations, care is taken to see that this is strictly adhered to, also that all the lumber fit for manufacture is taken from the logs cut. No attention would appear to be paid, however, by the lumbermen to the necessity for clearing away the cutting debris, which dries out and becomes a menace to the whole country through its liability to fire.

It cannot be said that the returns of the quarterly cutting are furnished by the companies so promptly as could be desired. Much delay along these lines is due, it is affirmed, to the method of using the Doyle scale in measuring the logs by the scalers, who must, of course, ultimately reduce such measurements to the British Columbia rule before Form No. 247 can be made up. Although repeatedly applied for, the mill returns for the quarter ended March 31, last, have not been received at this office to date of writing.

TIMBER PERMITS.

Homesteaders' and settlers' permits covering this district are being issued exclusively by the Dominion Lands Office at Kamloops, it having been found impracticable to issue such at this end owing to the delay caused by the necessity of first referring to the land records kept at the Kamloops agency before the permit could be granted. The Kamloops office furnish us daily with the full particulars of all permits issued of this nature, for the purpose of recording them in the permit register here, and with a view to the subsequent inspection by the Crown Timber Inspector of the lands cut over, also, of any mills operating in connection therewith.

FIRE SERVICE.

The summer of 1910 may be considered as one of the worst on record for the number and extent of forest fires occurring in British Columbia. An unusually hot, dry season, the brush dried out like tinder and was readily set alight, spreading with great rapidity before it could be checked. The average number of fires were caused by sparks from railway locomotives and lightning. Some were due to

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carelessness on the part of settlers in clearing land, one large fire, in particular, started in April, 1910, south of Revelstoke by a squatter burning brush, doing considerable damage before being extinguished.

Care should be taken by the foreman in charge of the gangs employed on the new provincial roads being constructed throughout the district, to see that the brush and slash are cleared away. This, if lying around, dries out to the extent that matches and cigar stumps thrown from a rig will readily set it alight.

It is thought that an additional number of forest fire rangers should be put on this season, in view of the additional area of berths coming under operation. In some instances, the ranger has to patrol too long a distance to enable him to render effective service; notably, between the Illecillewaet and Beavermouth, a distance of thirty-nine miles, which one man looks after. There is another ranger responsible for a distance of twenty-eight miles between Revelstoke and the above mentioned patrol.

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The following is a synopsis of the fires which occurred within the Revelstoke Crown Timber District during the season of 1910:—

Cause of fire.	Area burnt over.	Timber destroyed.
Sparks from railway engine	4 square miles.....	40,000 feet B.M.
Cause unknown.....	7 square miles.....	476,000 feet B.M.
Tramps.....	Small.....	None.
Lightning.....	$4\frac{1}{2}$ square miles.....	413,000 feet B.M.
Clearing land.....	1 mile 18 acres.....	25,000 feet B.M.
Fishers left fire.....	300 acres.....	50 cords wood.
Hunters left fire.....	3 acres.....	None.
Campers.....	12 acres.....	"
Indian camp fire.....	10 acres.....	"
Incendiary (unknown).....	210 acres.....	"
Squatters	$2\frac{1}{2}$ x $\frac{1}{2}$ mile.....	30,000 feet standing timber.
Men working on roads.....	10 acres.....	40,000 feet logs B.M.
Logging donkey engine.....	4 acres.....	None.
Old fire broke out.....	480 acres.....	"
Sectionmen burning rubbish.....	$\frac{1}{2}$ mile square.....	25,580 feet B.M.
		None.

Cost of fire fighting approximately \$2,000.

Your obedient servant,

C. W. SMITH,

Acting Crown Timber Agent.

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SCHEDULE A.—Statement of Receipts from Crown Timber Agency at Revelstoke, for fiscal year ending March 31, 1911.

Month.	Bonus under license.	Ground rent under license.	Royalty dues under license.	Permit fees, dues and rental.	Seizures.	Fire guarding fees.	Totals.
1910.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
April.....							
May.....							
June.....							
July.....		238 40	1,063 27	38 00	2 75		1,342 42
August.....		1,284 42	5,168 14	35 80	59 00		6,547 36
September.....		66 94	328 15	150 50	533 27		1,078 86
October.....		221 92	1,066 92	25	67 00		1,356 09
November.....	1,140 00	7 69	2,502 01				3,649 70
December.....		2 53	7 50				10 03
1911.							
January.....	1,873 33	7 75	940 22				2,821 30
February.....	1,154 70	37 79	3,537 50	100 25	57 95		4,888 19
March.....		3 94	1,163 36	2 75		5 93	1,175 98
Totals.....	4,168 03	1,871 38	15,777 07	327 55	719 97	5 93	22,869 93
Collected at Head Office—							
1910.							
July.....		112 05					112 05
August.....		112 30					112 30
September.....		97 59					97 59
		321 94					321 94
							22,869 93
Grand total.....							23,191 87

Certified correct,

C. W. SMITH,

Acting Crown Timber Agent.

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SCHEDULE B.—Showing the Sawmills operating within the Revelstoke Agency under Government License for the fiscal Year ending March 31, 1911.

Number.	Mill Owner.	Location of Mill.	Berth Number.	Kind of Power.	Horse Power.	Capacity per 10 hours.
1	Bowman Lumber Co.	Revelstoke, B. C.	88, 112, 113	Steam	223	40
"	"	"	249, 114, 127	"	"	"
2	Columbia River Lumber Co.	Comaplix Golden.	186	Steam	750	65
"	"	"	421, 493, 16, 45, 231, 238, 278, 421, 493	Electric, Steam	1,300	135
3	Dominion Sawmills and Lumber Limited.	Three Valley.	243, 349, 365	Steam	300	75
"	"	Taft.	437	"	500	70
4	A. R. Rogers Lumber Co.	Endorby.	237, 238	Steam	500	80
5	Palliser Lumber Co.	Palliser.	No cutting.	"	200	70
6	Arrow Lakes Lumber Co.	Arrowhead.	240, 293, 353	"	1,000	100
"	"	Kamloops.	335, 494	"	600	70
7	Monarch Lumber Co.	Savona.	171, 436	"	220	40
8	Lee Lumber Co.	Wigwam.	118	"	100	30
9	Kamloops Mines Limited.	Kamloops.	330	"	20	7
10	Independent Lumber Co.	On berth No. 437.	437	"	25	12
11	R. R. Hall.	Pingston Creek Arrow Lakes	316	Water.	125	40

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SCHEDULE B.—Showing the Sawmills operating within the Revelstoke Agency under Government License, &c.—*Concluded.*

Number.	Species of Timber cut.	LUMBER.		Log COUNT.	Average per log.	RAILWAY TIES.		SHINGLES.	Average Price of Lumber per M. ft.	Date of Last Return.	Remarks.
		Manu- factured.	Ft. B. M.	Logs cut.		Manu- factured.	Manu- factured.				
1	Cedar and pine.				Ft. B. M.				\$ cts		
	Hemlock and spruce.	24,589,757		149,055	164			615	16 80	March 31, 1911.	
2	Fir and cottonwood.								16 30	March 31, 1911.	
3	Fir, cedar and spruce.	4,300,817		44,366	97	9,807			14 00	"	
4	Hemlock, cedar, pine and fir.	16,180,941		101,432	129			12	19 00	"	
5	None cut.								None cut.	"	
6	Hemlock, tamarack, cedar, fir and pine.	17,210,583		131,337	131	2,964			12 83	"	
7	None cut.										
8	Fir, hemlock and cedar.	4,604,597		52,216	88				16 98	March 31, 1911.	
9	Spruce and pine.								16 98	March 31, 1911.	
10	Cedar, hemlock, fir, pine and spruce.	739,698		6,452	123				16 00	"	
11	Cedar, fir, hemlock, white pine and No cutting spruce.			during 191	0-1911				None sold.	"	Name of mill owner, P. Mc- Bryan.
	Fir.	118,900		576	207				"	"	Name of mill owner, Gibbons Lumber Co.
	Fir, jackpine.	65,213		852	74				"	"	
	Cedar, pine, hemlock, fir.	78,688		278	280				"	"	
	Total.	67,950,204				12,831					

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SCHEDULE D.—General Office Return of the Crown Timber Agency, Revelstoke, for
Fiscal Year ending March 31, 1911.

Particulars.	Number, &c.
Letters received.....	1,802
Letters written.....	3,278
Permits subject to dues issued.....	10
Free permits issued	19
Seizures made.....	500
Mill returns received and verified.....	11
Mills operating under government license.....	
Quantity of lumber manufactured, under license.....	67,950,204
" sold ".....	
" on hand ".....	
Average price at which lumber sold.	817 92
May permits issued.....	

C. W. SMITH,

Acting Crown Timber Agent.

2 GEORGE V., A. 1912

No. 33.

REPORT OF THE INSPECTOR OF RANCHES.

OFFICE OF THE INSPECTOR OF RANCHES,

CALGARY, ALBERTA, April 22, 1911.

J. W. GREENWAY, Esq.,
Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to submit herewith my report of the transactions of the Office of the Inspector of Ranches for the fiscal year ending March 31, 1911.

During the year 6,558 inspections were made and this necessitated travelling 13,917 miles by rail and 7,227 miles by wagon. On July 22, 1910, I was temporarily appointed assistant ranch inspector and started on my duties in that connection on August 8, 1910, and on March 11, 1911, I was appointed to the position of inspector of ranches. Mr. Helmer, the former inspector, was transferred from this office to the forestry branch in connection with the Rocky Mountain Forest Reserve. I was at work in connection with the distribution of seed grain for the Immigration Department from March 15 to April 21, 1911, and during this time no inspections were made in connection with the work of the ranch office. Numerous applications have been reported on from former notes taken on previous trips in certain districts and necessary information was also obtained, so that when the applications came to hand the same could be reported upon without delay, saving considerable expenditure of time and money to the department.

Last spring was an early one, and during the summer the weather was very dry, there having been numerous prairie fires. In numerous localities grass was very scarce and the ranchers were unable to secure sufficient hay, so that the stock were run out as much as possible on the open range. Considering the scarcity of grass and the long hard winter, stockmen in general think that they have pulled through the winter rather fortunately and with comparatively a small number of losses. The prospects for this year are exceedingly bright, there having been an abundance of moisture up to the present, and all are looking forward to a banner year for the west.

Your obedient servant,

CHAS. GRAYSON,

Inspector of Ranches.

No. 34.

REPORT OF THE ACCOUNTANT.

DEPARTMENT OF THE INTERIOR,

ACCOUNTS BRANCH,

OTTAWA, May 31, 1911.

W. W. CORY, Esq., C.M.G.,

Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit herewith statements of revenue collected from various sources during the fiscal year ended March 31, 1911, as follows:—

A. Dominion lands including Yukon.	\$3,108,735 50
B. Ordnance lands.	6,009 34
C. School lands.	1,614,733 93
D. Registration fees—Yukon.	1,378 19
E. Fines and forfeitures—N.W.T.	184 80
F. Casual revenue.	11,248 51
G. Seed grain repayments.	153,351 14
H. Fines under Immigration Act.	3,867 42
	<hr/>
	\$4,899,508 83

A statement of revenue on account of Dominion lands (marked I.) shows the receipts monthly, classified under sub-heads.

Statement (marked J.) shows a comparison between the receipts on account of Dominion lands for the fiscal year ended March 31, 1911, as compared with the revenue of the previous twelve months.

The gross receipts from all sources for the fiscal year 1910-11 amount to \$4,899,508.83, an increase of \$190,494.41 over the receipts of the previous year.

Your obedient servant,

CHAS. H. BEDDOE,

Superintending Accountant.

2 GEORGE V., A. 1912

A.—Dominion Lands Revenue (cash and scrip) for the Fiscal Year ended March 31, 1911.

Agencies.	Cash.		Scrip.		Total.	
	\$	cts.	\$	cts.	\$	cts.
YUKON TERRITORY.						
Sales of lands.....	3,300	38			3,300	38
Rentals of lands.....	9,959	84			9,959	84
Map sales, offices fees, &c.	16	00			16	00
Timber dues.....	13,167	34			13,167	34
Hay permits.....	164	00			164	00
Coal lands.....	266	50			266	50
Mining fees.....	68,303	78			68,303	78
Export tax on gold.....	103,168	19			103,168	19
Free certificates for export of gold.....	152	50			152	50
Hydraulic leases.....	6,127	00			6,127	00
Dredging leases.....	1,929	68			1,929	68
Homestead fees.....	120	00			120	00
Rent of water-power.....	1,801	00			1,801	00
Interim receipt account.....	270	50			270	50
Improvements.....	271	85			271	85
Patent fees.....	10	00			10	00
Overdeposits.....	200	00			200	00
DOMINION LANDS AGENCIES.	209,228	56			209,228	56
Battleford.....	70,447	72	114	29	70,562	01
Brandon.....	8,247	37			8,247	37
Calgary.....	315,590	16	240	00	315,830	16
Dauphin.....	17,773	54			17,773	54
Edmonton.....	108,103	28			108,103	28
Estevan.....	81,129	35			81,129	35
Grouard.....	4,268	42			4,268	42
Humboldt.....	30,981	58			30,981	58
Kamloops.....	34,396	20	160	00	34,556	20
Lethbridge.....	154,320	52			154,320	52
Medicine Hat.....	148,405	89			148,405	89
Moos Jaw.....	211,790	26	600	00	212,390	26
New Westminster.....	6,590	94			6,590	94
Prince Albert.....	34,317	94			34,317	94
Red Deer.....	94,238	19			94,238	19
Regina.....	32,899	83			32,899	83
Saskatoon.....	221,812	24			221,812	24
Swift Current.....	214,911	86	80	00	214,991	86
Winnipeg.....	60,028	48	243	55	60,272	03
Yorkton.....	34,065	78			34,065	78
CROWN TIMBER AGENCIES.	1,884,289	55	1,437	84	1,885,727	39
Battleford.....	273	66			273	66
Brandon.....	187	50			187	50
Calgary.....	21,886	22			21,886	22
Dauphin.....	8,330	69			8,330	69
Edmonton.....	53,671	99			53,671	99
Estevan.....	72	50			72	50
Grouard.....	173	97			173	97
Humboldt.....	44	48			44	48
Kamloops.....	1,647	57			1,647	57
Lethbridge.....	239	33			239	33
Medicine Hat.....	344	70			344	70
Moos Jaw.....	527	50			527	50
New Westminster.....	120,498	10			120,498	10
Prince Albert.....	45,995	80			45,995	80
Red Deer.....	456	49			456	49
Regina.....	38	00			38	00
Revelstoke (nine months).....	23,185	94			23,185	94
Saskatoon.....	66	75			66	75
Swift Current.....	263	80			263	80
Winnipeg.....	95,364	08			95,364	08
Yorkton.....	618	55			618	55
	373,887	62			373,887	62

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A.—Dominion Lands Revenue (cash and scrip) for the Fiscal Year ended March 31, 1911—*Concluded*.

Agencies.	Cash.		Scrip.		Total.	
	\$	cts.	\$	cts.	\$	cts.
MISCELLANEOUS.						
Rocky Mountains Park.....	65,513	58			65,513	58
Jasper Park.....	2,601	19			2,601	19
Yoho Park.....	743	10			743	10
Waterton Lakes Park.....	106	72			106	72
Buffalo Park.....	80	00			80	00
Elk Island Park.....	10	00			10	00
Survey fees.....	15,507	56			15,507	56
Irrigation fees.....	806	25			806	25
Patent fees.....	863	20			863	20
Map sales, office fees, &c.....	6,235	11			6,235	11
Fees re Board of Examiners, D.L.S.....	1,310	00			1,310	00
Mining fees.....	4,109	20			4,109	20
Grazing lands.....	60,702	80	2,356	00	63,058	80
Hay permits.....	7,644	43			7,644	43
Coal lands.....	490,271	77			490,271	77
Dredging leases.....	2,077	50			2,077	50
Stone quarries.....	5,037	60			5,037	60
Rent of water-power.....	642	69			642	69
Suspense account.....	4,876	17			4,876	17
Sales of land.....	72,777	09			72,777	09
Homestead fees.....	10	00			10	00
Purchased homestead fees.....	10	00			10	00
Miscellaneous.....	10,870	70			10,870	70
Petroleum.....	70,110	68			70,110	68
Sand, stone and gravel.....	11,956	50			11,956	50
	834,873	84	2,356	00	837,229	84
Refunds.....	3,302,279	57	3,793	84	3,306,073	41
	193,544	07	5,145	40	198,689	47
	3,108,735	50	1,351	56	3,107,383	94

CHAS. H. BEDDOE,

Superintending Accountant.

DEPARTMENT OF THE INTERIOR,

ACCOUNTS BRANCH,

OTTAWA, May 31, 1911.

2 GEORGE V., A. 1912

B.—STATEMENT of Ordnance Lands Revenue for the Fiscal Year, ended March 31, 1911.

1910.	
April.	\$2,185 79
May.	222 52
June.	1,206 02
July.	549 57
August.	388 90
September.	82 57
October.	18 10
November.	5 00
December.	23 00
1911.	
January.	468 42
February.	420 60
March.	438 85
	<hr/>
	\$6,009 34

CHAS. H. BEDDOE, .

Superintending Accountant.

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, May 31, 1911.

C.—STATEMENT of Receipts on Account of School Lands for the Fiscal Year ended March 31, 1911.

Month.	Manitoba School Lands.	Saskatche- wan School Lands.	Alberta School Lands.	Total.
1910.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
April	11,553 48	26,077 33	9,652 24	47,283 05
May.	20,421 63	13,010 76	9,284 95	42,717 32
June.	48,615 16	243,124 93	168,564 81	460,304 90
July.	13,994 07	196,204 68	84,615 75	298,814 50
August.	7,177 75	9,823 93	21,390 16	38,391 84
September.	11,050 56	11,313 02	15,848 07	38,211 65
October.	15,362 58	22,379 70	31,709 67	69,451 95
November.	89,997 40	110,625 98	158,401 54	359,024 92
December.	50,237 35	33,558 57	25,080 76	110,876 68
1911.				
January.	21,402 45	15,373 54	16,597 91	53,373 90
February.	13,414 20	12,089 71	20,587 91	46,101 82
March.	18,273 72	14,100 77	17,806 91	50,181 40
Total.	321,500 35	709,692 92	583,540 66	1,614,733 93

CHAS. H. BEDDOE,

Superintending Accountant.

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, May 31, 1911.

SESSIONAL PAPER No. 25

D.—STATEMENT of Registration Fees in the Yukon Territory for the Fiscal Year ended March 31, 1911.

Month.	District.	Registrar.	Amount.
1910.			\$ cts.
April.....	Yukon.....	N. Laliberte.....	121 55
May.....	".....	".....	80 27
June.....	".....	".....	141 85
July.....	".....	".....	163 30
August.....	".....	".....	131 75
September.....	".....	".....	242 27
October.....	".....	".....	217 20
November.....	".....	".....	
December.....	".....	".....	132 00
1911.			
January.....	".....	".....	58 75
February.....	".....	".....	20 00
March.....	".....	".....	69 25
			1,378 19

CHAS. H. BEDDOE,

Superintending Accountant.

DEPARTMENT OF THE INTERIOR,

ACCOUNTS BRANCH,

OTTAWA, May 31, 1911.

E.—STATEMENT of Fines and Forfeitures in the North West Territories for the Fiscal Year ended March 31, 1911.

Month.	From whom received.	Amount.
1910.		\$ cts.
August.....	Henry Ross.....	7 00
".....	".....	27 00
".....	Jno. Young.....	27 00
".....	Napoleon Campion.....	12 00
September.....	J. J. Starr.....	10 00
".....	Joseph Houle.....	25 40
October.....	Evajneuk.....	2 00
".....	Etovaryack.....	2 40
December.....	A. Prattie.....	10 00
1911.		
January.....	Frank Seward.....	10 00
".....	Andrew Cochrane.....	2 00
March.....	J. F. Drummond.....	25 00
".....	H. LeClair.....	25 00
		184 80

CHAS. H. BEDDOE,

Superintending Accountant.

DEPARTMENT OF THE INTERIOR,

ACCOUNTS BRANCH,

OTTAWA, May 31, 1911.

F.—STATEMENT of Casual Revenue for the Fiscal Year ended March 31, 1911.

Name.	Particulars.	Amount.
		\$ cts.
Peter Robertson	Salary cheque for April, 1909, not used	138 83
"	Balance unused of salary re special increase under Bill 187—Civil Government Salaries	24 50
"	Salary cheques for February and March, 1909, not used—Civil Government Salaries	277 69
G. A. Johnston	Refund account advances from Immigration, 1906-07	10 00
Public Works Dept.	Refund of rent paid in mistake to V. Matzeka by J. Bruce Walker, March 1 to November 30, 1906, Immigration	90 00
"	Refund cost of site of Immigration Hall at Regina	1,400 00
Jos. O'Neill	Refund account advances travelling expenses Dominion Lands Income	10 00
Commissioner Immigration Winnipeg	Sale of straw	6 00
A. R. McGregor	Salary cheque for September, 1908, not used—Dominion Lands Income	40 00
S. Maber	Refund balance advances 1909-10—Dominion Lands Income	108 60
G. White Fraser	Refund proceeds sale of launch used in Western water—Boundary Survey of 1909	337 50
F. Bockus	Refund balance advances—Immigration	5 00
A. Burk	Cheque not used—Dominion Lands Income—Forestry	4 50
F. Kennedy	Proceeds sale of buggy—Dominion Lands Income	15 00
R. S. Stronach	Balance advances travelling expenses Dominion Lands Income	2 71
J. J. McArthur	Balance account Survey of 49 Parallel Boundary Surveys	3 00
Jos. O'Neill	Refund account advance travelling expenses Dominion Lands Income	10 00
G. C. Rainboth	Refund balance re New Brunswick-Maine Boundary Survey 1909—Boundary Surveys	27
Caroline Lontet	Amount advanced to late Peter Lontet	50 00
Robert Mayson	Cheque returned not used—Dominion Lands Income—Forestry	1 25
Geo. A. Johnston	Refund account expenses—Immigration 1906-07	10 00
G. White Fraser	Account survey of Alaska Boundary 1908	13 55
Commissioner Immigration Winnipeg	Sale of straw and second hand tent	9 50
Jos. O'Neill	Refund account travelling expenses—Dominion Lands Income	10 00
Miss E. Wright	Refund account removal expenses	25 00
G. A. Johnston	Refund account Immigration Expenses 1906-07	10 00
F. Lambert	Account survey of 1909—Boundary Surveys	13 60
G. White Fraser	" " "	1 75
"	Refund account Western Water Boundary Surveys—Astronomical Surveys	473 19
G. T. Ry. Co.	Refund freight charges 29 Jan., 29 March, 1910—overcharge Immigration	133 45
Commissioner Immigration	Proceeds sale of tent flooring	5 00
J. D. Craig	Acct. Survey of 1909—Boundary Surveys	10 25
Jos. O'Neill	Refund advance travelling expenses—Dominion Lands Income	10 00
Dept. of Interior	Amount for transportation account paid from Dominion Lands Income Contingencies 1909-10	76 55
F. C. C. Lynch	Refund Balance advances 21 March, 1910—Map Vote	58 40
Canadian Northern Ry.	Refund overpayment on ticket	9 80
"	Refund overpayment on ticket—Dominion Lands Income	2 20
Agent Dominion Lands Dauphin, Manitoba	Sale of 5 window awnings used on office lately vacated	10 00
A. P. Stevenson	Refund of advance in 1909-10. Dominion Lands Income—Forestry	175 00
G. A. Johnston	Refund acct. travelling expenses—Immigration 1906-07	10 00
R. E. Young	Balance unexpected travelling expenses	21 60
G. M. Ulyot	Refund Balance removal expenses—Dominion Lands Contingencies	38 96
Jos. O'Neill	Refund account travelling expenses—Dominion Lands Contingencies	11 03
J. M. Larkin	Refund amount charged for transportation—Dominion Lands Contingencies 1909-10	9 60

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F.—STATEMENT of Casual Revenue for the Fiscal Year ended March 31, 1911.—*Con.*

Name.	Particulars.	Amount.
G. A. Johnston.....	Refund account travelling expenses—Immigration.	8 cts.
A. Helmer.....	Refund amount charged transportation in December,— Dominion Lands Contingencies ..	10 00 9 60
Commissioner Immigration, Winnipeg	Sale of straw.....	162 00
" " "	Refund travelling expenses <i>re</i> E. Fidler, account, 1909-10.....	5 60
R. E. Young.....	Refund account advance from Map Vote 1909-10	190 00
G. A. Johnston.....	" travelling expenses—Immigration.....	10 00
F. Kennedy.....	Proceeds sale of horse.....	35 00
Chas. Davis, sr.....	Refund account expenses—Immigration.....	37 38
G. A. Johnston.....	" travelling expenses—Immigration, 1906- 1907.....	10 00
D. R. Cameron	Refund Dominion Lands cheques issued in 1909-10 for salary but not used	282 50
"	Refund advances for expenses from Dominion Lands contingencies 1909-10	182 45
G. A. Johnston.....	Refund account travelling expenses—Immigration 1906-7	10 00
J. E. Narraway	Taxed costs of respondents in <i>Pattullo vs. King</i>	142 96
D. McDonald	Credited to advance made to H. A. Conroy in 1908- 1909—Dominion Lands income—Protection of Timber Vote.....	50 00
S. Cunningham	" " " "	50 00
T. W. Lylick	" " " "	50 00
Wm. Biggs	" " " "	50 00
G. A. Johnston.....	Refund account travelling expenses—Immigration 1906-1907.....	10 00
St. Pierre Ferguson. ..	Refund <i>re</i> advance to H. A. Conroy—Dominion Lands Income—Protection of timber.....	50 00
G. A. Johnston.....	Refund account travelling expenses—Immigration 1906- 1907.....	10 00
Commissioner Immigration, Winnipeg	Sale old cook stove and tent flooring	17 25
W. S. Larose.....	Refund <i>re</i> travelling expenses—Immigration expenses.....	25 00
Geo. A. Johnston.....	" immigration expenses 1906-07	10 00
W. R. Ridington.....	Proceeds sale of outfit—Homestead inspector G. G. Smith.....	150 00
W. S. Larose.....	Refund account travelling expenses—Immigration.....	25 00
Wm. Ritchie.....	Payment for stove, being balance of supplies held by Mr. McGuire—Dominion Lands Income, Forestry	5 00
Chas. James	Services for one day in October, 1909, (cheque not used) Dominion Lands Income, Forestry	2 00
R. D. Miller.....	Sale of horses—Forestry.....	125 00
E. F. Stephenson.....	Balance account travelling expenses—Dominion Lands Income, contingencies.....	106 85
Wm. Truscott	Refund of Deportation Expenses 1909.....	4 86
Imperial Local Government Board, London	Refund cost of inspection of orphan or deserted children during 1909.	5,355 83
		10,877 56
	Less refunds \$77.75 and \$9.80.....	87 55
<i>Casual Revenue, Northwest Territories.</i>		
Hudson's Bay Co.....	Liquor Permit.....	2 00
"	"	3 00
"	"	3 00
"	"	26 80
W. C. Creighton.....	"	2 00
C. Thompson.....	"	2 00
Messrs Hislop & Co.....	"	53 00
Hudson's Bay Co.....	"	2 00
W. J. McLean.....	"	2 00
J. M. Macoun.....	"	2 00
W. Spreadborough.....	"	2 00
Geo. Arthurson.....	"	2 00
Jno. McDonald.....	"	2 00
W. W. Harter.....	"	2 00

2 GEORGE V., A. 1912

F.—STATEMENT of Casual Revenue for the Fiscal Year ended March 31, 1911.—*Con.*

Name.	Particulars.	Amount.	
		\$	cts.
Jas. Begg.....	Liquor Permit.....	2	50
B. O. Fryer.....	".....	2	00
D. A. McIvor.....	".....	2	00
E. R. Collier.....	".....	2	00
Jas. Swanson.....	".....	2	00
M. McIvor.....	".....	2	50
D. McKenzie.....	".....	1	00
".....	".....	1	00
Wm. Ogilvie.....	".....	2	00
G. Cowan.....	".....	2	00
G. Halcrow.....	".....	2	00
F. McLean.....	".....	2	50
H. L. Bélanger.....	".....	2	00
E. B. Haight.....	".....	2	00
Dr. A. Larose.....	".....	2	00
Geo. Hughes.....	".....	2	00
A. Mercer.....	".....	2	00
H. S. Johnson.....	".....	2	00
Fred Fischer.....	".....	2	00
J. H. Davies, M.D.....	".....	2	00
G. C. Bobinnie.....	".....	2	00
E. C. Senkler.....	".....	2	00
D. A. McIvor.....	".....	3	00
J. H. Gordon.....	".....	3	00
H. Halcrow.....	".....	2	00
Chas. Saunders.....	".....	1	00
D. McLeod.....	".....	2	00
Wm. Swanson.....	".....	2	00
J. J. G. Rosser.....	".....	2	00
Capt. H. H. Ross.....	".....	2	00
Capt. Haight.....	".....	2	00
Gordon Haight.....	".....	2	00
Hudson's Bay Co.....	".....	24	00
Rev. J. R. Settee.....	".....	3	00
H. S. Johnson.....	".....	3	00
J. S. Duff.....	".....	2	00
Paul Morin.....	".....	2	00
E. M. Joyal.....	".....	2	00
H. Halcrow.....	".....	3	00
H. S. Johnson.....	".....	2	00
Paul Morin.....	".....	2	00
Wm. Kerr.....	".....	2	00
Geo. Cowan.....	".....	4	00
Richard Hooker.....	".....	8	00
Mathew Buck.....	".....	2	00
D. Ogilvie.....	".....	1	00
J. H. Gordon.....	".....	2	00
Z. Umpherville.....	".....	2	00
Fred Fischer.....	".....	4	00
Louis Cochrane.....	".....	2	00
L. C. Senkler.....	".....	2	00
G. Halcrow.....	".....	2	00
W. C. Lundie.....	".....	2	00
F. H. South.....	".....	2	00
Dr. M. Leclair.....	".....	2	00
J. J. Cochrane.....	".....	1	00
Herman Finger.....	".....	2	00
John Bacon.....	".....	2	00
Capt. H. H. Ross.....	".....	2	00
D. H. Guymer.....	".....	80	
E. C. Leslie.....	".....	2	00
Frank Seward.....	Refund price of dog killed by him.....	10	00
Mrs. L. Bacon.....	Liquor Permit.....	2	00
A. Halcrow.....	".....	2	00
J. Campbell.....	".....	2	00
J. H. Davies.....	".....	2	00
Geo. Morton.....	".....	2	00
J. J. Hosser.....	".....	2	00

SESSIONAL PAPER No. 25

F.—STATEMENT of Casual Revenue for the Fiscal Year ended March 31, 1911.—*Con.*

Name.	Particulars.	Amount.
		\$ cts.
Dr. H. Betts	Liquor Permit.....	2 00
Employees of Messrs Hislop & Nagle	"	25 00
W. Kerr.....	"	2 00
F. Sahys.....	"	1 00
J. Thomas.....	"	1 00
F. Wales	"	2 00
W. H. Bunting	"	2 00
Robt. Davis.....	"	2 00
Hudson's Bay Co.	"	2 00
"	"	2 00
"	"	52 00
"	"	25 40
"	"	42 50
"	"	16 00
		458 50
Total .....	.....	11,248 51

CHAS. H. BEDDOE,

Superintending Accountant.

DEPARTMENT OF THE INTERIOR,

ACCOUNTS BRANCH,

OTTAWA, May 31, 1911.

G.—STATEMENT Showing Repayments on account of Seed Grain Advances and Relief Mortgages for the Fiscal Year ended March 31, 1911.

	Seed Grain Advances, 1909.	Seed Grain Advances, 1908.	Seed Grain Advances, 1906.	Seed Grain Advances, 1901.	Seed Grain Advances, 1900.	Seed Grain Advances, 1896.	Seed Grain Advances, 1895.	Seed Grain Advances, 1891.	Seed Grain to Set- tlers Account, 1890.	Territorial Account, 1886-87-88.	Relief Mortgages, 1876.	Relief Advances.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
	21,114 12	107,386 52	417 36	832 96	61 23	529 33	1,283 66	927 70	722 52	707 61	2,335 50	17,032 63	153,351 14
	306 74	5,386 74	39 34	80	.. ..	4 80	40 60	15 52	157 85	7 27	.. ..	547 87	6,487 51
R-funds,	20,807 38	102,019 78	378 02	832 16	61 23	524 53	1,243 06	912 18	564 67	700 36	2,335 50	16,484 76	146,863 63

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, May 31, 1911.

CHAS. H. BEDDOE,
Superintending Accountant.

SESSIONAL PAPER No. 25

H.—STATEMENT of Fines under Immigration Act, for the fiscal year ended March 31, 1911.

Month.	From whom received.	Amount.
1910.		\$ cts.
July	J. E. Armstrong.....	3 00
	F. D. Cowper.....	119 00
	".....	1 00
August	F. S. Dilworth.....	50 00
	Catherine Delaine.....	1 00
	Antonio Delaine.....	1 00
	W. R. Meyers.....	30 00
	A. Weir.....	650 00
September	H. G. Herbert.....	20 00
	T. D. Cowper, C. P.....	121 92
	Alex. Fraser, P. M.....	66 00
	".....	300 00
	Jas. D. Gibson.....	120 00
	Aime Talbot, C. P.....	400 00
October	C. E. Willox.....	25 00
	Robt. Fleck, J. P.....	12 00
	J. A. Armstrong.....	4 00
November	C. St. G. Yarwood, J. P.....	8 00
	Jacob Rackhof.....	600 00
	Alex. Fraser, P. M.....	10 00
	P. T. McCallum.....	20 00
	P. Demanczuk & W. Polik.....	19 90
December	Francisco Tonano.....	19 90
1911.		
January	T. D. Cooper.....	324 00
	Alex. Fraser, P. M.....	5 00
February	J. E. Armstrong.....	20 00
	W. B. Cochrane.....	50 00
	Alex. Fraser, P. M.....	86 00
March	M. C. Goodair.....	25 00
	E. Wills, J. P.....	25 00
	A. E. Humphries.....	99 70
	Alex. Fraser, P. M.....	105 00
	C. E. Willox.....	25 00
	Geo. Badome.....	10 00
	C. St. G. Yarwood.....	70 00
	Thos. Robinson.....	50 00
	E. Wills.....	70 00
	C. St. G. Yarwood.....	40 00
	F. S. Dilworth.....	5 00
	T. D. Cowper.....	76 00
	A. E. Skinner.....	100 00
	W. B. Cochrane.....	80 00
		3,857 42

CHAS. H. BEDDOE,

Superintending Accountant.

DEPARTMENT OF THE INTERIOR,

ACCOUNTS BRANCH,

OTTAWA, May 31, 1911.

2 GEORGE V., A. 1912

I.—STATEMENT of Gross Receipts on Account of Dominion Lands Revenue for the Fiscal Year ended March 31, 1911.

Month.	Homestead Fees.	Pre-emption and Purchased Homestead Fees.	Improvements.	General Sales of Lands.	Timber Dues.	Rental from Grazing Lands.	Export Tax on Gold, Mining fees, Hay, Coal Lands, &c.	Canadian National Parks.	Survey Fees.	Map Sales, Rental, Office Fees and Miscellaneous.	Total.
1910.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
April.....	72,120 00	35,180 50	9,896 51	81,200 49	57,468 80	5,619 85	31,345 68	7,173 87	9,215 77	3,160 05	312,381 52
May.....	63,745 00	28,665 00	13,025 14	114,957 80	50,890 04	5,158 02	34,950 38	6,644 78	428 60	6,640 18	325,104 94
June.....	58,015 00	24,800 00	11,369 25	133,362 88	32,790 96	5,617 21	50,337 11	2,967 54	48 00	1,462 16	320,812 11
July.....	42,530 00	15,860 00	9,380 40	137,105 76	37,308 01	2,227 40	105,643 68	9,802 49	48 00	1,350 76	261,296 50
August.....	35,005 00	11,750 00	14,226 90	105,629 59	27,094 52	5,566 36	53,471 48	7,116 22	113 10	11,768 55	271,861 72
September.....	28,820 00	9,380 00	11,043 08	99,075 69	15,512 00	5,454 87	62,391 00	2,978 91	8,276 36	1,157 14	243,218 60
October.....	33,240 00	11,410 00	10,202 65	88,860 53	21,035 36	3,386 23	104,463 13	7,190 90	112 10	2,297 69	284,420 61
November.....	31,980 00	10,480 00	16,201 44	155,319 50	46,500 47	4,827 67	71,768 79	4,872 64	144 00	1,490 60	343,685 11
December.....	13,530 00	6,860 00	10,287 29	74,262 90	24,557 66	6,322 57	69,409 16	1,330 54	48 00	1,576 45	214,124 57
1911.											
January.....	13,655 00	4,460 00	10,439 32	60,600 62	30,416 87	4,618 95	72,419 80	7,484 24	128 07	3,317 21	207,540 08
February.....	16,355 00	5,760 00	12,863 18	58,527 05	21,267 57	3,617 19	62,086 68	6,605 53	847 86	1,858 72	189,789 18
March.....	30,060 00	40,080 00	14,291 97	84,853 83	19,162 21	5,586 48	56,280 30	4,826 93	1,115 70	1,897 21	228,154 63
	445,135 00	175,315 50	143,227 13	1,193,756 04	387,654 96	60,702 89	774,569 27	69,054 59	15,507 56	37,956 72	3,302,279 57

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,

OTTAWA, May 31, 1911.

CHAS. H. BEDDOE,

Superintending Accountant.

SESSIONAL PAPER No. 25

DOMINION LANDS REVENUE.

J.—STATEMENT of Gross Receipts (cash and scrip) on account of Dominion Lands Revenue for the fiscal year ended March 31, 1911, compared with the previous fiscal year.

Particulars.	1911.	1910.	Increase.	Decrease.	Net increase
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Dominion Lands Agencies.	1,885,727 39	1,941,109 22		55,381 83	
Crown Timber Agencies.	373,887 62	356,034 60	17,853 02		
Hay, Mining, Coal, Grazing, &c.	757,304 55	350,731 14	406,573 41		
Yukon.	209,228 56	221,442 28		12,213 72	
Parks.	69,054 59	43,264 36	25,790 23		
Miscellaneous.	10,870 70	109,864 53		98,993 83	
Total.	3,306,073 41	3,022,446 13	450,216 66	166,589 38	283,627 28

CHAS. H. BEDDOE,

Superintending Accountant.

DEPARTMENT OF THE INTERIOR,

ACCOUNTS BRANCH,

OTTAWA, May 31, 1911.

No. 35.

REPORT OF THE SCHOOL LANDS BRANCH.

DEPARTMENT OF THE INTERIOR,

SCHOOL LANDS BRANCH,

OTTAWA, June 26, 1911.

W. W. CORY, Esq., C.M.G.,

Deputy Minister of the Interior,

Ottawa.

SIR,—I have the honour to submit the following report on the business of the School Lands Branch of the department for the fiscal year ending March 31, 1911.

SALES.

As a number of auction sales of school lands were held in Manitoba during the months of June and November, 1909, it was not considered advisable in the interest of the school lands fund to hold any general auction sales in the province during the fiscal year, but in response to applications made to the department, the fractional west-half and southeast quarter of section 11, township 8, range 25, west of the principal meridian, were put up at Oak Lake on May 18, 1910, and were sold for an average price of \$13.08 per acre.

2 GEORGE V., A. 1912

The east-half of section 11, township 15, range 3, west of the principal meridian, and two small parcels of section 29, township 11, range 5, east of the principal meridian, of 3.20 acres and 1.60 acres respectively, or in all 324.80 acres were also put up and sold at Winnipeg on March 21, 1911, for an average price of \$33.62 per acre.

Exclusive of the sales to railway companies under the provisions of the Railway Act for right of way and station grounds, 621.80 acres were sold during the fiscal year in the province of Manitoba for \$14,994, or an average of \$24.11 per acre. This includes 9 acres sold to boards of school trustees for school sites. The sales to railway companies for right-of-way and station grounds amounted to 48.61 acres for \$443.53, or an average price of \$9.12 per acre.

Auction sales of school lands were also held in the province of Saskatchewan as follows:—

Date.	Place.	Area in acres.	Amount realized.	Average price per acre.
1910.			\$ cts.	\$ cts.
May 17...	Prince Albert.....	20 00	200 00	10 00
June 2...	Weyburn.....	36,652 62	596,324 34	16 27
" 6...	Arcola.....	21,960 18	268,036 17	12 21
" 8...	Stoughton.....	22,873 79	297,832 83	13 02
" 10...	Francis.....	34,528 64	592,376 77	17 16
" 13...	Estevan.....	39,084 02	498,003 28	12 74
" 17...	Esterhazy.....	9,568 95	102,885 90	10 72
" 20...	Abernethy.....	11,179 22	155,940 53	13 95
" 22...	Rosthern.....	23,745 31	333,067 24	14 03
" 24...	Hanley.....	26,695 01	456,561 18	19 10
" 27...	Saskatoon.....	50,135 26	883,206 96	17 62
Aug. 11...	Dauphin.....	153 62	1,075 34	7 00
Nov. 11...	Yorkton.....	26,796 20	364,469 34	13 60
" 16...	Weyburn.....	663 63	14,235 07	22 46
	Total.....	304,056 45	4,564,175 04	15 01
	Sold for school sites.....	76 95	769 50	.....
	Total.....	304,133 40	4,564,944 54	15 00

There were also sold under the Railway Act to railway companies for right of way, station grounds, &c., 448.06 acres for \$4,686.74, making a grand total of 304,581.46 acres for \$4,569,631.28, or an average of \$15 per acre.

In Alberta the lands disposed of by public auction were as follows:—

Date.	Place.	Area in acres.	Amount realized.	Average price per acre.
1910.			\$ cts.	\$ cts.
May 19....	Camrose.....	36,568 63	447,392 96	12 23
" 25....	Medicine Hat.....	76,300 74	1,008,637 81	13 22
Oct. 27....	Vermilion.....	24,237 06	261,889 29	10 81
Nov. 1....	Vegreville.....	28,553 85	292,546 60	10 25
" 3....	Tofield.....	12,877 49	175,416 52	12 64
" 7....	Edmonton.....	2,328 94	26,950 87	11 57
	Total.....	181,866 71	2,212,834 05	12 16
	Sold for school sites.....	47 12	471 20
	Total.....	181,913 83	2,213,305 25	12 16

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In addition to this 470.07 acres were sold to railway companies for right-of-way and station grounds for \$3,606.70. This makes a grand total of 182,383.90 acres for \$2,216,911.95, or an average price of \$12.11 per acre.

The total area sold during the fiscal year within the three provinces was 487,635.77 acres for \$6,801,980.76.

GRAZING.

During the fiscal year grazing permits were issued as follows:—

Saskatchewan..	738
Alberta..	472
Manitoba..	46
Total..	<u>1,256</u>

In addition to the foregoing there are still 507 grazing leases in force, but as these expire they will be renewed, if so desired, in the form of grazing permits. The revenue from this source in each province was as follows:—

Manitoba..	\$ 1,312 86
Saskatchewan..	11,588 60
Alberta..	11,369 17
Total..	<u>\$24,270 63</u>

COAL LEASES.

During the fiscal year the number of coal leases issued was 26, there being sixty-eight leases of this kind now in force.

The revenue from this source for the fiscal year was \$20,255.80.

HAY.

The revenue from hay permits for the same period was \$6,089.20.

Hereto attached are three statements lettered respectively A., B. and C., showing duly classified the revenue from the school lands in the provinces of Manitoba, Saskatchewan and Alberta for the past fiscal year. From this it will be seen that the total net revenue from each province was as follows:—

Manitoba..	\$ 320,608 53
Saskatchewan..	707,727 83
Alberta..	582,077 11
Total..	<u>\$1,610,413 47</u>

Of this sum \$54,018.58 was collected through the agencies, and \$1,556,394.89 at head office.

Under the provisions of the orders in council in that behalf, the net revenue collected from the school lands in each province during the fiscal year with the exception of the principal moneys of sales, was handed over to the government of each province after deducting the cost of management.

Under this arrangement the amount to be paid over to each province was arrived at as follows:—

2 GEORGE V., A. 1912

MANITOBA.

Total net revenue for fiscal year	\$320,608 53
Less principal moneys	214,911 07
Revenue other than principal moneys	105,697 46
Less expenditure for fiscal year	8,675 90
Amount to be paid over to the government of Manitoba	97,021 56

SASKATCHEWAN.

Total net revenue for fiscal year	\$707,727 83
Less principal moneys	641,061 82
Revenue other than principal moneys	66,666 01
Less expenditure for fiscal year	13,991 64

Amount to be paid over to the government of Saskatchewan \$52,674 37

ALBERTA.

Total net revenue for fiscal year	\$582,077 11
Less principal moneys	438,395 79
Revenue other than principal moneys	143,681 32
Less expenditure for fiscal year	12,374 65

Amount to be paid over to the government of Alberta. \$131,306 67

Finance Department cheques for the above amounts were accordingly issued and forwarded to the provincial treasurer of each province.

In addition to the above amounts, the following sums were also paid to each province as interest on the school lands endowment funds for the fiscal year, namely:—

Manitoba	\$81,525 73
Saskatchewan	44,047 45
Alberta	34,749 52

This makes the total payment to each province for the fiscal year as follows:—

Manitoba	\$178,547 29
Saskatchewan	96,721 82
Alberta	166,056 19

Statement D., hereto attached, shows the revenue collected through the several agencies during the fiscal year, and Statements E., F. and G., show the balance standing to the credit of each of the school lands funds on April 1, 1911, namely:—

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Manitoba.	\$2,797,334 01
Saskatchewan.	1,688,932 77
Alberta.	1,292,014 92

The total expenditure in connection with the administration of the school lands of the three provinces for the fiscal year was \$35,042.29, and as the total revenue was \$1,610,413.47, the cost of management, including all expenses was a little less than $2\frac{1}{3}$ per cent of the total revenue.

The business of the branch has increased greatly during the last twelve months, as indicated by the figures given. The following is a summary of the business done during the year, but of course it only gives an approximate idea of the volume of work:—

Letters received.	15,716
Letters and telegrams sent.	22,307
Statements of accounts rendered (approximate).	14,000
Grazing permits issued.	1,256
Coal leases issued.	26
Cultivation permits issued.	42
Receipts issued.	3,785
Assignments registered.	443

Respectfully submitted,

FRANK S. CHECKLEY,

Chief of Branch.

2 GEORGE V., A. 1912

A.—MANITOBA SCHOOL LANDS.

STATEMENT of Revenue collected from School Lands for the Fiscal Year from April 1, 1910, to March 31, 1911, both dates inclusive.

Month.	SALES.				Total.	Cultivation.	Grazing.		Timber.		Hay.	Gravel.	Registration Fees.	Total.
	Principal.		Interest.				\$	cts.	\$	cts.				
	\$	cts.	\$	cts.										
1910.														
April.....	8,578 74	2,207 45	10,786 19	13 00		177 04								10,976 23
May.....	10,376 25	8,716 54	19,692 79	35 84		152 12								19,890 75
June.....	31,921 67	14,238 47	46,160 14	26 00		65 10								46,251 24
July.....	7,397 08	4,895 62	12,292 70			31 15				1 50				12,235 55
August.....	4,298 49	2,796 71	7,025 20			17 60								7,042 80
September.....	8,368 74	2,128 54	10,527 28			14 93								10,542 21
October.....	10,623 50	4,178 28	14,801 78			26 40								14,828 18
November.....	60,154 44	28,741 94	88,896 38			36 20				4 00				88,936 58
December.....	31,309 05	16,908 05	48,217 10			38 40				2 50				48,258 00
1911.														
January.....	14,764 07	5,164 10	19,928 17	30 00		211 05		168 40						20,337 62
February.....	8,708 08	3,139 59	11,847 67	15 00		36 78								11,899 45
March.....	12,785 68	4,896 03	17,621 71	51 00		163 69				160 00	20 00			18,016 40
Agencies.....	290,845 79	97,861 52	397,707 31	170 84		970 46		170 90		165 50	20 00			309,205 01
	5,438 40	2,538 91	7,977 31			403 45		2,839 03		1,142 55				12,362 34
Registration Fees.....	215,284 19	100,400 43	315,684 62	170 84		1,373 91		3,009 93		1,308 05	20 00	233 00		321,567 35
														233 00
Fees transferred to Dominion Lands.....	215,284 19	100,400 43	315,684 62	170 84		1,373 91		3,009 93		1,308 05	20 00	233 00		321,800 35
								45 00		235 00				300 00
Refunds.....	215,284 19	100,400 43	315,684 62	170 84		1,373 91		2,964 93		1,053 05	20 00	233 00		321,560 35
	373 12	51 15	424 27			61 05		386 80		9 70				891 82
Total.....	214,911 07	100,349 28	315,260 35	170 84		1,312 86		2,568 13		1,043 35	20 00	233 00		320,608 53

DEPARTMENT OF THE INTERIOR,
SCHOOL LANDS BRANCH,
OTTAWA, May 18, 1911.

FRANK S. CHECKLEY,
Chief of Branch.

SESSIONAL PAPER No. 25

B.—SASKATCHEWAN SCHOOL LANDS.

STATEMENT of Revenue collected from School Lands for the Fiscal Year from April 1, 1910, to March 31, 1911, both dates inclusive.

Month.	SALES.		Total.	Cultivation.	Grazing.	Timber.	Hay.	Coal.	Sand.	Registration Fees.	Total.	
	Principal.	Interest.										
1910.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
April.....	29,371 63	2,463 63	22,835 26	146 10	937 99	4 90	4 90				23,924 25	
May.....	7,750 89	1,619 85	3,370 74	25 50	941 11	4 90					10,342 25	
June.....	240,990 35	665 51	241,655 86		436 67			93 17			242,175 70	
July.....	192,770 27	1,990 93	194,761 20	4 50	321 38						195,077 08	
August.....	6,714 55	963 60	7,738 15		313 12			719 45			8,770 72	
September.....	10,270 10	569 84	10,839 94		214 74	1 00	1 00	92 84			11,148 52	
October.....	18,660 09	3,346 93	22,007 02		212 60						22,219 62	
November.....	93,987 77	14,138 49	108,026 26	29 00	310 61						108,356 87	
December.....	22,747 85	11,967 23	34,715 08	5 00	158 96			139 61			35,015 65	
1911.												
January.....	10,391 54	3,171 40	13,562 94	10 00	971 57		10 00				14,554 51	
February.....	7,467 26	1,556 30	9,023 56		1,575 50		7 00	288 00			10,894 06	
March.....	6,307 02	3,572 63	9,979 65	46 00	2,215 42		28 65				12,269 72	
Agencies.....	638,350 32	45,146 34	684,505 66	257 10	8,599 67	4 90	51 55	1,333 07			694,751 95	
	3,373 43	1,544 35	4,917 78	107 40	4,055 29	2,100 80	3,622 65	539 30	45 00		15,388 22	
Registration Fees.....	641,732 75	47,690 69	689,423 44	364 50	12,654 96	2,105 70	3,674 20	1,872 37	45 00	296 00	716,140 17	
											296 00	
Fees transd. to Dom. Lands.....	641,732 75	47,690 69	689,423 44	364 50	12,654 96	2,105 70	3,674 20	1,872 37	45 00	296 00	716,436 17	
						18 75	723 50				743 25	
Refunds.....	641,732 75	47,690 69	689,423 44	364 50	12,654 96	2,086 95	2,949 70	1,872 37	45 00	296 00	709,092 92	
	670 53	151 20	822 13		1,006 36	29 90	46 70				1,965 09	
Total.....	641,061 82	47,539 49	688,601 31	364 50	11,568 60	2,057 05	2,903 00	1,872 37	45 00	296 00	707,727 83	

DEPARTMENT OF THE INTERIOR,
SCHOOL LANDS BRANCH,
OTTAWA, May 18, 1911.

FRANK S. CHECKLEY,
Chief of Branch.

2 GEORGE V., A. 1912

C.—ALBERTA SCHOOL LANDS.

STATEMENT of Revenue collected from School Lands for the Fiscal Year from April 1, 1910, to 31 March, 1911, both dates inclusive.

Month.	SALES.		Total.	Cultivation.		Grazing.	Timber.		Hay.	Coal.	Petro- leum.	Registration Fees.		Total.
	Principal.	Interest.		\$	cts.		\$	cts.				\$	cts.	
1910.														
April	6,355 68	1,417 02	7,772 70			655 46				121 05				8,552 21
May	1,406 39	960 25	2,366 64			839 41			21 80	4,104 00	5 00			7,416 85
June	160,035 88	6,834 63	167,470 53			322 02				101 00				167,963 55
July	47,419 28	36,856 90	84,276 18			320 29			4 00	1,404 00				86,004 47
August	13,241 51	6,527 31	19,768 82			348 01								20,016 83
September	9,847 91	4,741 72	14,589 63			176 58				816 00				15,395 21
October	19,255 49	10,478 84	29,734 33		25	297 57				744 00				30,776 15
November	124,622 28	23,576 51	148,498 79			372 21				780 70				149,651 70
December	13,048 31	6,732 16	19,780 47			294 44				3,925 80				23,971 71
1911														
January	9,518 13	2,919 37	12,437 50			794 73				781 00				14,013 23
February	10,343 10	3,854 29	14,197 39		3 25	1,841 54				962 13				16,944 31
March	11,229 51	3,332 54	14,562 05			1,626 77				184 00				16,372 82
Agencies	427,223 47	108,231 56	535,455 03		3 25	7,789 03		25	25 80	13,927 68	5 00			557,206 04
	11,460 32	2,220 39	13,680 71			4,103 61		611 50	2,572 45	4,954 75	385 00			20,268 02
Registration Fees	438,683 79	110,461 95	549,145 74		3 25	11,892 64		611 75	2,568 25	18,882 43	340 00		473 10	583,474 06
	438,683 79	110,461 95	549,145 74			11,892 64		611 75	2,568 25	18,882 43	340 00		473 10	583,947 16
Fees transferred to Dominion Lands								5 00	401 50					406 50
Refunds	438,683 79	110,461 95	549,145 74		3 25	11,892 64		606 75	2,196 75	18,882 43	340 00		473 10	583,540 06
	288 00	91 43	379 43			523 47		7 75	53 90	490 00				1,463 55
Total	438,345 79	110,370 52	548,766 31		3 25	11,369 17		599 00	2,142 85	18,383 43	340 00		473 10	582,077 11

DEPARTMENT OF THE INTERIOR,
SCHOOL LANDS BRANCH,
OTTAWA, May 18, 1911.

FRANK S. CHECKLEY,
Chief of Branch.

SESSIONAL PAPER No. 25

D.—REVENUE from School Lands collected by the different Agencies during the Fiscal Year ending March 31, 1911.

Agencies.	SALES.		Total.	Cultivation.	Grazing.	Timber.	Hay.	Coal.	Sand.	Petroleum.	Total.
	Principal.	Interest.									
	%	\$	cts.	%	cts.	%	cts.	%	cts.	%	cts.
Winnipeg.....	2,324 03	1,510 41	3,834 44		28 80	2,766 28	700 65				7,339 17
Brandon.....	2,739 52	874 55	3,614 07		294 88	1 00	199 00				4,128 95
Dauphin.....	354 85	153 95	508 80		130 17	71 75	242 90				903 62
Estevan.....					188 19		243 95	514 30			946 41
Regina.....	814 15	223 23	1,037 38		641 00	22 00	798 25				2,498 63
Yorkton.....	2,519 28	1,321 12	3,840 40		273 20		373 55				4,489 15
Prince Albert.....	40 00		40 00	46 00	194 85	2,676 80	268 00				2,625 65
Battleford.....					710 75	75	386 35		45 00		662 32
Humboldt.....					246 94		567 75	25 00			1,112 85
Moosejaw.....				61 40	430 88		358 20				850 48
Saskatoon.....					605 67	1 25	3 1 70				958 62
Swift Current.....					1,225 84		123 60	5 00			1,354 44
Medicine Hat.....					425 17		81 40	1,495 00		330 00	3,006 07
Lethbridge.....	178 44	496 06	674 50		1,919 69	25	642 95	1,081 60			15,896 76
Calgary.....	10,690 47	1,461 80	12,152 27		350 47	36 75	668 10	517 75			1,774 30
Red Deer.....	123 16	64 07	192 23		411 23	574 50	1,082 40	1,855 40		5 00	4,600 24
Edmonton.....	403 25	208 46	671 71								
Peace River.....											
Total.....	20,272 15	6,313 65	26,585 80	107 40	8,562 35	5,551 33	7,337 65	5,494 05	45 00	335 00	54,018 58

DEPARTMENT OF THE INTERIOR,

SCHOOL LANDS BRANCH,

OTTAWA, May 18, 1911.

FRANK S. CHECKLEY,
Chief of Branch.

2 GEORGE V., A. 1912

E.—MANITOBA SCHOOL LANDS.

STATEMENT of Revenue and Expenditure on account of Manitoba School Lands for the Fiscal Year ended March 31, 1911.

Particulars.	Period.	Dr.		Cr.	
		\$	cts.	\$	cts.
By balance on April 1, 1910				2,582,422	94
" sales	12 months ended March 31, 1911.			315,260	35
" cultivation permits.	" " " "			170	84
" timber dues, hay permits, grazing rental and gravel.	" " " "			4,944	34
" registration fees.	" " " "			233	00
" interest on fund	" " " "			81,525	73
To cost of management at Ottawa.	12 months ended March 31, 1911.	4,894	90		
" salaries, printing, advertising and general expenses.	" " " "	3,781	00		
" revenue and interest paid to Manitoba Government.	" " " "	97,021	56		
" interest on fund paid to Manitoba Government.	" " " "	81,525	73		
" balance on March 31, 1911.		2,797,334	01		
		2,984,557	20	2,984,557	20

FRANK S. CHECKLEY,

Chief of Branch.

DEPARTMENT OF THE INTERIOR,

SCHOOL LANDS BRANCH,

OTTAWA, June 12, 1911.

SESSIONAL PAPER No. 25

F.—SASKATCHEWAN SCHOOL LANDS.

STATEMENT of Revenue and Expenditure on account of Saskatchewan School Lands
for the Fiscal Year ended March 31, 1911.

Particulars.	Period.	Dr.		Cr.	
		\$	cts.	\$	cts.
By balance on April 1, 1910.				1,047,870	95
" sales.	12 months ended March 31, 1911.			688,601	31
" cultivation permits.	" " "			364	50
" timber dues, hay permits, grazing and coal rentals and sand.	" " "			18,466	02
" registration fees.	" " "			296	00
" interest on fund.	" " "			44,047	45
To cost of management at Ottawa.	12 months ended March 31, 1911.	4,894	90		
" salaries, printing, advertising and general expenses.	" " "	9,096	74		
" revenue and interest paid to Saskat- chewan Government.	" " "	52,674	37		
" interest on fund paid Saskatchewan Government.	" " "	44,047	45		
" balance on March 31, 1911.		1,688,932	77		
		1,799,646	23	1,799,646	23

FRANK S. CHECKLEY,

Chief of Branch.

DEPARTMENT OF THE INTERIOR,

SCHOOL LANDS BRANCH,

OTTAWA, June 12, 1911.

2 GEORGE V., A. 1912

G.—ALBERTA SCHOOL LANDS.

STATEMENT of Revenue and Expenditure on account of Alberta School Lands for the Fiscal Year ended March 31, 1911.

Particulars.	Period.	Dr.		Cr.	
		\$	cts.	\$	cts.
By balance on April 1, 1910.....				853,619	13
" sales.....	12 months ended March 31, 1911.....			548,766	31
" cultivation permits.....	" " " ".....			3	25
" timber dues, hay permits, grazing and coal rentals and petroleum.....	" " " ".....			32,834	45
" registration fees.....	" " " ".....			473	10
" interest on fund.....	" " " ".....			34,749	52
To cost of management at Ottawa.....	12 months ended March 31, 1911.....	4,894	89		
" salaries, printing, advertising and general expenses.....	" " " ".....	7,479	76		
" revenue and interest paid to Alberta Government.....	" " " ".....	131,306	67		
" interest on fund paid to Alberta Government.....	" " " ".....	34,749	52		
" balance on March 31, 1911.....		1,292,014	92		
		1,470,445	76	1,470,445	76

FRANK S. OHECKLEY,

Chief of Branch.

DEPARTMENT OF THE INTERIOR,

SCHOOL LANDS BRANCH,

OTTAWA, June 12, 1911.

No. 36.

REPORT OF THE ORDNANCE AND ADMIRALTY LANDS BRANCH.

DEPARTMENT OF THE INTERIOR,

OTTAWA, June 8, 1911.

W. W. CORY, Esq., C.M.G.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit the annual report of this branch of the department for the fiscal year ending March 31, 1911.

Within the period covered by this report there were no public sales of ordnance lands held, but, with reference to lands previously sold or held under lease with the privilege of having such leasehold property converted into freehold upon payment in cash of the total amount of the purchase money, 14 whole lots and 6 half lots situated in the localities hereunder mentioned and in the annexed statement marked 'A,' have been redeemed and letters-patent therefor have been issued.

1. Grand Falls, N.B.—Five town lots and three farm lots situated within the limits of the ordnance reserve adjacent to this town, and which were sold at public auction on various dates for the sum of \$479, have been paid for in full and letters-patent issued therefor; the sum of \$288.80 being the final payments of the purchase money having been received within the fiscal year.

A free grant in the form of a quit claim deed was issued in favour of the town of Grand Falls, for a strip of ordnance lands known as 'Broadway street,' connecting two sections of the ordnance reserve, and which forms the principal street in the town.

2. Niagara-on-the-Lake.—One of the lots situated in this town, and forming part of the sub-division of 'the hospital lots,' which was sold by public auction in 1908 for the sum of \$275, was paid for in full, and letters-patent issued. The balance of the purchase money amounting to \$165 was received within the year.

3. Ottawa.—The ordnance lots in this locality are occupied by tenants under provisions embodied in the original leases granted by the Imperial authorities, one of these provisions being that the lessee may, at any time, upon payment in cash of the amount of consideration money placed on these lots, redeem the same and obtain letters-patent therefor. During the last year one whole and four half lots were redeemed and patents issued. The total amount of consideration money received for these lots was \$603.

A grant in the form of a quit claim deed was issued in favour of the corporation of the city of Ottawa, conveying to that body any interest the crown might have in the property known as the 'old cemetery lots,' situated between Wurtemberg and Cobourg streets in this city. These lots were set apart in 1844 by the principal officers of Her Majesty's ordnance and appropriated to the Roman Catholic, the Wesleyan Methodist, the Presbyterian and the Episcopalian congregations, respectively, for cemetery purposes, but have not been used for this purpose for many years. Prior to the preparation and delivery of the quit claim deed from the Crown,

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and with the view of having the whole property transformed into a public park, the corporation obtained and filed in this branch quit claim deeds in favour of the said corporation from each of the denominations interested.

Burlington Heights.—Two lots forming part of the sub-division of the ordnance property in this locality and reserved from sale on account of the same having been used as a burial ground in which the bodies of a number of soldiers and emigrants who died from cholera had been interred, were, by order in council, transferred from class two to class one of Ordnance and Admiralty Lands, and placed under the control of the Department of Militia and Defence.

Kingston.—Possession of a small parcel of ordnance land fronting on Cataragui bay in this city and occupied by the Kingston and Pembroke Railway Company under license of occupation was resumed by the Crown, as provided in the said license of occupation, the land in question being required for military purposes, and was transferred by order in council to class one of Ordnance and Admiralty Lands, and placed under the control of the Department of Militia and Defence.

Sorel.—A block of ordnance land embracing six lots and forming part of the reserve in this locality, was transferred by order in council to the Department of Marine and Fisheries, the same being required in connection with the government shipyard.

The following statements are hereto annexed:—

A. Statement giving the number of lots and part lots sold or redeemed; the amounts for which such lots were originally sold and the sum received within the fiscal year.

B. Statement giving the names of the several localities where ordnance lands are situated on account of which moneys have been received during the past fiscal year.

C. Statement showing the receipts each month classified as fees, rent or interest equivalent to rent and principal.

D. Statement showing the amounts due and unpaid on account of purchase money and rent or interest. The total amount shown to be outstanding is \$60,110.18.

The correspondence and routine work in connection with this branch averaged about the same as during the previous fiscal years. The number of letters received, recorded and filed was 425; number of letters written, copied, indexed and mailed, 455. In addition there were 144 accounts prepared and rendered, 110 receipts issued and 77 reports pertaining to ordnance lands in the various localities prepared and submitted. There were likewise 14 draft letters-patent prepared, 13 assignments received, examined and registered, and 7 new leases issued.

The accounts with purchasers and tenants of ordnance lands now open in the books of this branch number 194, all of which have been regularly and carefully posted. The receipt book, cash book and monthly statement book have been assiduously kept and a monthly return of all moneys received carefully prepared and regularly furnished to the superintending accountant of the department.

In addition to the foregoing report on the work in connection with ordnance lands, the work required in connection with the orders in council passed from time to time relating to the administration of the whole department has been carefully and efficiently carried on. An estimate may be formed of the volume of work performed in connection with the copying, comparing, recording, printing, proof-reading, checking, numbering, filing, &c., of all orders in council passed affecting this department, when attention is drawn to the fact that 621 orders in council were passed within the last year, an increase of 108 over the previous year. Of these 245 were prepared for publication in the *Canada Gazette*, and 35 likewise published in the *British Columbia Gazette*.

SESSIONAL PAPER No. 25

Since the date of the last report an additional bound volume of orders in council, for the year 1906, for departmental reference and as a permanent record was prepared, indexed, bound and copies thereof distributed among the various branches of the department. A complete index for another volume was commenced and is now in course of preparation.

An exhaustive record of attendance of the officials of the several branches of this large and growing department—now numbering over 700—is carefully and regularly kept. As this record comprises absences for any and all causes and constitutes the basis of the monthly pay lists and of the quarterly returns required under the Civil Service Amendment Act, 1908, its importance can be easily estimated.

I have the honour to be, sir,

Your obedient servant,

JOS. P. DUNNE,

Clerk in charge of Ordnance and Admiralty Lands Branch.

'A.'—STATEMENT giving the number of lots and part lots sold or redeemed, the amount for which lots were originally disposed of and the sums received as instalments or balance of purchase monies during the Fiscal Year ending March 31, 1911.

Locality.	Number of lots sold or redeemed.	Amount of consideration or purchase money.	Amount received on account during the fiscal year.	Remarks.
		\$ cts.	\$ cts.	
Grand Falls	4 town lots.....	351 00	224 80	Balance of purchase money.
	3 farm lots.....	128 00	64 00	"
Ottawa	2 whole lots.....	360 00	360 00	Consideration in full.
	4 half lots.....	243 00	243 00	"
Niagara.....	Hospital lot.....	275 00	165 00	Balance of purchase price.
		1,357 00	1,056 80	

JOS. P. DUNNE,

Clerk in charge of Ordnance and Admiralty Lands Branch.

2 GEORGE V., A. 1912

{B.}—STATEMENT naming the various localities where Ordnance Lands are situated on account of which moneys have been received during the Fiscal Year ending March 31, 1911.

Locality.	Total.	Locality.	Total.
	\$ cts.		\$ cts.
Amherstburg.....	2 00	Queenston.....	2 00
Burlington.....	100 00	St. Joseph's Isle.....	75 91
Chambly.....	1 00	Sarnia.....	200 00
Elmsley.....	5 70	Shelbourne.....	3 00
Fort Erie.....	2 00	Sorel.....	29 00
Grand Falls.....	658 78	South Crosby.....	2 00
Grenville.....	2 00	Toronto.....	1,670 00
Kingston.....	52 25	Wolford.....	202 40
Longueuil.....	2 00		
Nepoan.....	7 50		5,951 84
Niagara.....	170 50	Fees.....	57 90
Oromoctoo.....	50		
Ottawa.....	1,830 03		6,009 34
Owen Sound.....	55 00	Refunds.....	26 10
Oxford.....	1 20		
Point Pelee.....	21 57		5,983 24
Prescott.....	3 00	February refund.....	25 00
Presqu'Isle.....	2 50		
Quebec.....	830 00		5,958 24

JOS. P. DUXNE.

Clerk in charge of Ordnance and Admiralty Lands Branch.

SESSIONAL PAPER No. 25

'C.'—STATEMENT showing receipts each month of the year classified as Fees, Rent or Interest, equivalent to Rent and Principal.

Month.	Fees.	Rent or Interest.	Principal.	Total.
1910.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
April.....	12 00	1,828 79	345 00	2,185 79
May.....		222 52		222 52
June.....		1,206 02		1,206 02
July.....		418 77	130 80	549 57
August.....	18 00	124 70	246 20	388 90
September.....	1 50	41 07	40 00	82 57
October.....		18 10		18 10
November.....	2 00	3 00		5 00
December.....	2 00	1 59	19 41	23 00
1911.				
January.....	4 00	210 73	253 69	468 42
February.....		344 80	75 80	420 60
March.....	18 00	282 85	138 00	438 85
	57 50	4,702 94	1,248 90	6,009 34
Refunds—				
July.....	2 00			
August.....	4 00			
September.....	1 50			
November.....	7 50			
January.....	8 55			
February.....	55			
April.....	2 00			
	26 10			26 10
February refund.....				5,983 24
				25 00
				5,958 24

JOS. P. DUNNE,

Clerk in charge of Ordnance and Admiralty Lands Branch.

2 GEORGE V., A. 1912

'D.'—STATEMENT showing amounts due and unpaid on account of Purchase Money and Rent or Interest for the Fiscal Year ending March 31, 1911.

Locality.	Rent or Interest.		Principal.		Total.	
	\$	cts.	\$	cts.	\$	cts.
Beaver Harbour.....		12 00				12 00
Burlington Beach.....		120 00				120 00
Carillon.....		5 60				5 60
Chambly.....		313 23		347 00		660 23
Dalhousie.....		13 80		23 00		36 80
Edmunston.....		39 68		38 40		78 08
Elmsley.....		4 00				4 00
Fort Cumberland.....		164 00				164 00
Grand Falls.....		340 20		953 97		1,294 17
Grenville.....		20				20
Kingston.....		150 00				150 00
Marlborough.....		3 00				3 00
Nepean.....		58 00				58 00
Niagara.....		66 51		389 80		456 31
Ottawa.....		2,708 20				2,708 20
Owen Sound.....		83 00				83 00
Oxford.....		50				50
Presqu'Isle.....		50				50
St. Croix.....		4 00				4 00
Sorel.....		1,368 32				1,368 32
Tay.....		8 00				8 00
Toronto.....		780 00		52,000 00		52,780 00
Turkey Point.....		18 67				18 67
Wolford.....		96 60				96 60
		6,358 01		53,752 17		60,110 18

JOS. P. DUNNE,

Clerk in charge of Ordnance and Admiralty Lands Branch.

No. 37.

REPORT OF THE CORRESPONDENCE COMPARING AND MAILING
BRANCH.

DEPARTMENT OF THE INTERIOR,
CORRESPONDENCE COMPARING AND MAILING BRANCH,
OTTAWA, April 3, 1911.

W. W. CORY, Esq., C.M.G.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit to you, herewith, a statement showing the work done in the Correspondence Comparing and Mailing Branch of the Department of the Interior during the fiscal year ended March 31, 1911.

I have the honour to be, sir,

Your obedient servant,

CHAS. C. PELLETIER.

Chief Clerk in Charge.

STATEMENT of the work done in the Correspondence Comparing and Mailing Branch during the Fiscal Year ending March 31, 1911.

From April 1, 1910, to March 31, 1911.	Letters sent.	Registered letters sent.	Telegrams sent.	Totals.
1910.				
April	33,195	2,701	304	36,200
May	28,680	2,193	351	31,224
June	28,658	2,422	344	31,424
July	32,880	2,521	358	35,759
August	35,853	2,358	250	38,471
September	31,250	2,263	175	33,688
October	33,815	2,461	197	36,473
November	31,775	2,274	207	34,256
December	30,912	2,129	183	33,224
1911.				
January	30,861	2,613	137	33,611
February	30,327	2,430	158	32,915
March	33,665	2,474	226	36,365
Total for fiscal year ending March 31, 1911	381,871	28,849	2,890	413,610

2 GEORGE V., A. 1912

The outgoing letters were copied in 159 one-thousand paged letter-books, compared with 158 letter-books for the same period last year.

The number of pages of letter-books indexed was 158,558.

The daily average of letters sent out was 1,262.

The heaviest daily average was during the month of August, the same month as last year, the daily average being 1,380. The lightest month was June with an average of 1,146.

There were 1,000 documents compared.

The grand total for this office during the fiscal year 1910-1911 was 413,610, an increase of about 10,000 letters over last year.

CHAS. C. PELLETIER,

Chief Clerk in Charge.

No. 38.

REPORT OF THE CORRESPONDENCE REGISTRATION BRANCH.

DEPARTMENT OF THE INTERIOR,

CORRESPONDENCE REGISTRATION BRANCH,

OTTAWA, April 18, 1911.

W. W. CORY, Esq., C.M.G.,

Deputy Minister of the Interior,

Ottawa.

SIR,—I have the honour to place before you a report of the work of the Registration Branch of the department for the fiscal year, which ended with March 31, last.

Statement A. shows the number of letters recorded and the amount of money received and sent to the accountant during the year.

Statement B. shows the growth of the work year by year for the last twelve years.

Letters or parcels enclosing cash, cheques, money orders, &c., reached a total of 13,677.

There were 2,550 telegrams received and registered. Letters written in foreign languages translated into English numbered 1,976.

There were 992,400 files distributed to the several branches, and at present there are 10,000 files being acted on or awaiting action throughout the department.

There were 372,241 letters received and dealt with and 279,181 were numbered and recorded.

Notwithstanding the growth of the work (19,863 letters over the preceding year), and the great inconvenience caused by the scattered condition of the branches of the department, I am able to say that at no other period during the last six years have results been so satisfactory.

Messrs. H. Chandler, J. A. C. Elliott, G. A. Grey and A. A. Traversy have been transferred to other branches.

J. M. ROBERTS,

Chief of Branch.

SESSIONAL PAPER No. 25

A.—STATEMENT showing the number of letters recorded and the money received during the Fiscal Year ended March 31, 1911.

Months.	Letters Recorded.	Daily Average.	REGISTERED LETTERS.		Money Received.
			Received.	Sent.	
1910.					\$ cts.
April.....	22,152	852	1,586	2,701	172,085 33
May.....	29,156	1,268	1,535	2,193	154,754 14
June.....	31,530	1,221	1,597	2,422	231,285 18
July.....	28,345	1,090	1,638	2,521	239,171 08
August.....	27,565	1,060	1,725	2,368	117,443 15
September.....	21,580	863	1,744	2,263	80,364 20
October.....	20,405	816	1,638	2,461	226,232 38
November.....	24,140	966	1,862	2,274	352,470 34
December.....	21,200	883	1,700	2,129	205,977 40
1911.					
January.....	17,845	743	1,639	2,613	123,616 14
February.....	16,148	673	1,613	2,430	199,643 77
March.....	19,115	735	1,785	2,430	117,174 86
Total.....	279,181		20,062	28,849	2,220,117 97

J. M. ROBERTS,

Chief of Branch.

DEPARTMENT OF THE INTERIOR,
CORRESPONDENCE REGISTRATION BRANCH,
OTTAWA, April 12, 1911.

B.—STATEMENT showing the number of letters recorded and the money received during each Fiscal Year from 1900 to March 31, 1911.

Fiscal Year.	Letters Recorded.	Money Received.
		\$ cts.
1900.....	48,663	200,831 71
1901.....	67,860	333,534 02
1902.....	67,722	382,999 87
1903.....	87,851	629,585 47
1904.....	113,074	630,355 44
1905.....	135,968	528,219 76
1906.....	176,729	875,933 54
1907. (nine months).....	159,462	1,337,780 94
1908.....	187,684	1,558,230 32
1909.....	260,142	1,798,276 17
1910.....	264,209	2,381,605 39
1911.....	279,186	2,220,117 97

J. M. ROBERTS,

Chief of Branch.

DEPARTMENT OF THE INTERIOR,
CORRESPONDENCE REGISTRATION BRANCH,
OTTAWA, April 12, 1911.

2 GEORGE V., A. 1912

No. 39.

REPORT OF LAND PATENTS BRANCH.

DEPARTMENT OF THE INTERIOR,
LAND PATENTS BRANCH,
OTTAWA, July 3, 1911.

W. W. CORY, Esq., C.M.G.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit for your information the statements, hereinafter enumerated, for the fiscal year ended March 31, 1911, in connection with the work performed in the Land Patents Branch.

1. Statement of letters patent issued for Dominion lands situate in Manitoba, Saskatchewan, Alberta, British Columbia, the Yukon Territory and the Northwest Territories.

2. Statement showing the number of patents forwarded to the several registrars of the land registration districts of the provinces of Alberta and Saskatchewan and the Yukon Territory.

3. Statement showing the number of patents issued by the Department of the Interior in each year since 1874.

4. Statement showing the number of homestead entries, as compared with the corresponding period of the previous year.

5. Statement showing the number of pre-emptions, purchased homesteads and South African volunteer homesteads granted in each land agency.

6. Statement of homesteads, pre-emptions, purchased homesteads and South African volunteer homesteads granted during each month.

7. Statement showing the number of South African bounty land certificates of 320 acres each, issued under the Volunteer Bounty Act, 1908, by the Department of the Interior.

8. Statement of entries affecting Dominion lands which were made at head office.

9. Comparative statement of homestead entries and sales made during the fiscal years ended March 31, 1910, and March 31, 1911, respectively.

10. Statement showing the number of assignments recorded in the Land Patents Branch.

11. Statement showing the number of entries cancelled during the year; also the year in which such entries were made.

I have the honour to be, sir,

Your obedient servant,

N. O. COTE,

Chief of Branch.

SESSIONAL PAPER No. 25

1.—STATEMENT of Letters Patent covering Dominion Lands situate in Manitoba, Saskatchewan, Alberta, Northwest Territories, British Columbia and the Yukon Territory, issued from the Department of the Interior during the Fiscal Year ending March 31, 1911, as compared with the Fiscal Year ending March 31, 1910, and recorded in the Land Patents Branch.

Number.	Nature of Grant.	FROM APRIL 1, 1910, TO MARCH 31, 1911.		FROM APRIL 1, 1909, TO MARCH 31, 1910.	
		Patents.	Acres.	Patents.	Acres.
1	Alberta Railway and Irrigation Co's sales . . .	98	66,933	105	46,923
2	Assignment of Mortgages			3	
3	British Columbia homesteads	84	12,431	104	14,791
4	British Columbia sales	86	6,389	58	3,317
5	Coal lands sales	45	9,779	70	16,047
6	Coal surface sales	2	50		
7	Commutation grants	1	24	8	552
8	Homesteads	18,961	3,001,930	20,231	3,205,690
9	Hudson's Bay Co.	11	71,588	3	991
10	Leases			1	
11	License of Occupation	23	75	20	
12	Manitoba Act grants	3	71	10	399
13	Manitoba University grants	2	320		
14	Military bounty grants	6	951	3	479
15	Military homesteads	5	1,496	5	1,579
16	Mining lands sales	16	2,213	12	1,459
17	Mineral rights (40,752 acres)	173		88	
18	Northwest half breed grants	332	59,634	283	51,968
19	Northwest Mounted Police grants			1	160
20	Parish sales	11	1,096	17	2,326
21	Quit claim, special grants (2,233 acres)	14		19	
	Railways:—				
22	Calgary and Edmonton Railway Co.	19	5,442	14	6,225
23	Canadian Northern Railway Co.	181	38,380	181	127,139
24	Canadian Pacific Railway grants	179	27,649	41	6,247
25	Canadian Pacific Railway grants, Souris Br.	53	270,826	3	8,248
26	Canadian Pacific Railway roadbed and station grounds	47	1,586	2	152
27	Grand Trunk Pacific Railway	127	2,842	89	4,332
28	Manitoba and Northwestern Railway Co.	11	169	2	7
29	Manitoba and Southeastern Railway Co.	6	2,252		
30	Manitoba Southwestern Colonization Railway Co.			3	2,846
31	Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Co.	10	2,034	15	3,285
32	Sales	551	71,099	523	66,727
33	School lands sales	392	42,361	627	79,283
34	Special grants	195	6,710	275	9,342
35	Yukon Territory sales, (37 acres, under rights)	110	3,958	38	1,745
	Totals	21,754	3,710,288	22,854	3,662,259

N. O. COTE,

Chief of Branch and Registrar of Dominion Lands Patents.

DEPARTMENT OF THE INTERIOR,

LAND PATENTS BRANCH,

OTTAWA, July 3, 1911.

2 GEORGE V., A. 1912

2.—STATEMENT of Letters Patent covering Dominion Lands situate in the Province of Manitoba, issued from the Department of the Interior during the Fiscal Year ending March 31, 1911, as compared with the Fiscal Year ending March 31, 1910, and recorded in the Land Patents Branch.

Number.	Nature of Grant.	FROM APRIL 1, 1910, TO MARCH 31, 1911.		FROM APRIL 1, 1909, TO MARCH 31, 1910.	
		Patents.	Acres.	Patents.	Acres.
1	Assignment of mortgages.....			3	
2	Commutation grants.....	1	24	8	552
3	Homesteads.....	600	92,271	589	90,177
4	Hudson's Bay Co.....	2	29,694		
5	Manitoba Act grants.....	3	71	10	399
6	Manitoba University.....	2	320		
7	Mining lands sales.....	10	1,958	11	1,408
8	Parish sales.....	10	1,076	16	2,262
9	Quit claim, special grants.....			2	
	Railways:—				
10	Canadian Northern Railway Co.....	72	12,472	11	141
11	Canadian Pacific Railway grants.....	2	19	9	177
12	Canadian Pacific Railway roadbed and station grounds.....	1	7		
13	Grand Trunk Pacific Railway.....	6	133		
14	Manitoba and Northwestern Railway Co.....			1	2
15	Manitoba and Southeastern Railway Co.....	1	12		
16	Manitoba Southwestern Colonization Rail- way Co.....			1	6
17	Sales.....	90	6,078	95	6,539
18	School lands sales.....	141	19,097	411	62,853
19	Special grants.....	10	323	16	1,300
	Totals.....	951	163,555	1,183	165,816

N. O. COTE,

Chief of Branch and Registrar of Dominion Lands Patents.

DEPARTMENT OF THE INTERIOR,

LAND PATENTS BRANCH,

OTTAWA, July 3, 1911.

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- 3.—STATEMENT of Letters Patent covering Dominion Lands situate in the Province of Saskatchewan, issued from the Department of the Interior during the Fiscal Year ending March 31, 1911, as compared with the Fiscal Year ending March 31, 1910, and recorded in the Land Patents Branch.

Number.	Nature of Grant.	FROM APRIL 1, 1910, TO MARCH 31, 1911.		FROM APRIL 1, 1909 TO MARCH 31, 1910.	
		Patents.	Acres.	Patents.	Acres.
1	Coal lands sales			2	60
2	Homesteads	11,740	1,860,253	12,937	2,049,369
3	Hudson's Bay Co.	6	10,196	2	947
4	License of occupation	10		7	
5	Military bounty grants	2	320	2	319
6	Military homesteads	3	960	3	939
7	Mining lands sales	1	126		
8	Mineral rights (4,197 acres)	16		2	
9	Northwest half-brsd grants	180	33,426	190	35,216
10	Northwest Mounted Police grants			1	160
11	Quit claim, special grants (2,233 acres)	14		17	
	Railways:—				
12	Canadian Northern Railway Co.	109	25,909	170	126,998
13	Canadian Pacific Railway grants	107	3,744	21	3,298
14	Canadian Pacific Railway grants, Souris Branch	52	270,666	3	8,248
15	Canadian Pacific Railway roadbed and sta- tion grounds	45	1,537		
16	Grand Trunk Pacific Railway	74	1,203	15	232
17	Manitoba and Northwestern Railway Co.	11	169	1	5
18	Manitoba and Southeastern Railway Co.	4	2,080		
19	Manitoba and Southwestern Colonization Railway Co.			2	2,840
20	Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Co.	10	2,034	15	3,285
21	Sales	274	37,756	226	33,911
22	School lands sales	157	16,293	134	11,883
23	Special grants	78	1,922	167	2,202
	Totals	12,893	2,268,594	13,917	2,279,912

N. O. COTE,

Chief of Branch and Registrar of Dominion Lands Patents.

DEPARTMENT OF THE INTERIOR,

LAND PATENTS BRANCH,

OTTAWA, July 3, 1911.

2 GEORGE V., A. 1912

- 4.—STATEMENT of Letters Patent covering Dominion Lands situate in the Province of Alberta, issued from the Department of the Interior during the Fiscal Year ending March 31, 1911, as compared with the Fiscal Year ending March 31, 1910, and recorded in the Land Patents Branch.

Number.	Nature of Grant.	FROM APRIL 1, 1910, TO MARCH 31, 1911.		FROM APRIL 1, 1909, TO MARCH 31, 1910.	
		Patents.	Acres.	Patents.	Acres.
1	Alberta Railway and Irrigation Co's sales.....	98	66,933	105	46,923
2	Coal lands sales.....	45	9,779	68	15,987
3	Coal surface sales.....	2	50		
4	Homesteads.....	6,619	1,049,389	6,705	1,066,144
5	Hudson's Bay Co.....	3	31,698	1	44
6	Leases.....			1	
7	License of occupation.....	13	75	13	
8	Military bounty grants.....	4	631	1	160
9	Military homesteads.....	2	536	2	640
10	Mining lands sales.....	3	56		
11	Mineral rights (36,535 acres).....	157		85	
12	Northwest half-breed grants.....	152	26,208	93	16,752
13	Parish sales.....	1	20	1	64
	Railways:—				
14	Calgary and Edmonton Railway Co.....	19	5,442	14	6,225
15	Canadian Pacific Railway grants.....	69	23,606	10	2,762
16	Canadian Pacific Railway grants, Souris Branch.....	1	160		
17	Canadian Pacific Railway roadbed and station grounds.....			2	152
18	Grand Trunk Pacific Railway.....	47	1,506	74	4,100
19	Manitoba and Southeastern Railway Co.....	1	160		
20	Sales.....	184	26,298	202	26,277
21	School lands sales.....	94	6,971	82	4,547
22	Special grants.....	102	4,342	85	5,739
	Totals.....	7,616	1,253,860	7,544	1,196,516

N. O. COTE,

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[DEPARTMENT OF THE INTERIOR,

LAND PATENTS BRANCH,

OTTAWA, July 3, 1911.

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- 5.—STATEMENT of Letters Patent covering Dominion Lands situate in the Province of British Columbia, issued from the Department of the Interior during the Fiscal Year ending March 31, 1911, as compared with the Fiscal Year ending March 31, 1910, and recorded in the Land Patents Branch.

Number.	Nature of Grant.	FROM APRIL 1, 1910, TO MARCH 31, 1911.		FROM APRIL 1, 1909, TO MARCH 31, 1910.	
		Patents.	Acres.	Patents.	Acres.
1	British Columbia homesteads.....	84	12,431	104	14,791
2	British Columbia sales.....	86	6,389	58	3,317
3	Mining lands sales.....	2	73		
4	Mineral rights.....			1	
	Railways:—				
5	Canadian Pacific Railway grants.....	1	280	1	10
6	Canadian Pacific Railway roadbed and station grounds.....	1	42		
7	Special grants.....	5	123	7	101
	Totals.....	179	19,338	171	18,219

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DEPARTMENT OF THE INTERIOR,

LAND PATENTS BRANCH,

OTTAWA, July 3, 1911.

- 6.—STATEMENT of Letters Patent covering Dominion Lands situate in the Yukon Territory, issued from the Department of the Interior during the Fiscal Year ending March 31, 1911, as compared with the Fiscal Year ending March 31, 1910, and recorded in the Land Patents Branch.

Number.	Nature of Grant.	FROM APRIL 1, 1910, TO MARCH 31, 1911.		FROM APRIL 1, 1909, TO MARCH 31, 1910.	
		Patents.	Acres.	Patents.	Acres.
1	Yukon Territory sales (37 acres, under rights)...	110	3,958	38	1,745

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DEPARTMENT OF THE INTERIOR,

LAND PATENTS BRANCH,

OTTAWA, July 3, 1911.

2 GEORGE V., A. 1912

- 7.—STATEMENT of Letters Patent covering Dominion Lands situate in the Northwest Territories, issued from the Department of the Interior during the Fiscal Year ending March 31, 1911, as compared with the Fiscal Year ending March 31, 1910, and recorded in the Land Patents Branch.

Number.	Nature of Grant.	FROM APRIL 1, 1910, TO MARCH 31, 1911.		FROM APRIL 1, 1909, TO MARCH 31, 1910.	
		Patents.	Acres.	Patents.	Acres.
1	Homesteads.	2	16		
2	Sales.	3	987		
3	Mining lands sales.			1	51
	Totals.	5	983	1	51

N. O. COTE,

Chief of Branch and Registrar of Dominion Lands Patents.

DEPARTMENT OF THE INTERIOR,

LAND PATENTS BRANCH,

OTTAWA, July 3, 1911.

- 8.—STATEMENT showing number of Patents forwarded to the several registrars of the Land Registration districts of the Provinces of Alberta, Saskatchewan, the Northwest Territories and the Yukon Territory, and the number of notifications mailed to patentees during the year ended March 31, 1911.

Registration District.	No. of Patents sent to Registrars.	Number of Notifications mailed to Patentees.
Assiniboia.	4,230	4,106
East Saskatchewan.	790	689
West Saskatchewan.	1,376	1,210
Yorkton.	1,271	1,098
Saskatoon.	4,733	4,624
Moosajaw.	159	154
North Alberta.	4,746	4,611
South Alberta.	2,607	2,498
Northwest Territories.	22	29
Yukon.	110	112
Totals.	20,044	19,131

N. O. COTE,

Chief of Branch and Registrar of Dominion Lands Patents.

DEPARTMENT OF THE INTERIOR,

LAND PATENTS BRANCH,

OTTAWA, July 3, 1911.

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9.—STATEMENT showing the number of Letters Patent issued by the Department of the Interior in each year since 1874.

Period.	No. issued.
Year ended October 31, 1874.	536
" " 1875.	492
" " 1876.	375
" " 1877.	2,156
" " 1878.	2,597
" " 1879.	2,194
" " 1880.	1,704
" " 1881.	1,768
" " 1882.	2,766
" " 1883.	3,591
" " 1884.	3,837
" " 1885.	3,257
" " 1886.	4,570
" " 1887.	4,599
" " 1888.	3,275
" " 1889.	3,282
" " 1890.	3,273
" " 1891.	2,449
" " 1892.	2,955
" " 1893.	2,936
" " 1894.	2,553
" December 31, 1894.	2,682
" " 1895.	2,118
" " 1896.	2,665
" " 1897.	2,972
" " 1898.	3,037
" " 1899.	3,904
Six months ended June 30, 1900.	1,970
Year ended " 1901.	6,461
" " 1902.	8,768
" " 1903.	7,349
" " 1904.	6,890
" " 1905.	8,798
" " 1906.	12,370
Nine months ended March 31, 1907.	10,596
Year ended " 1908.	18,690
" " 1909.	22,431
" " 1910.	22,854
" " 1911.	21,754

N. O. COTE,

Chief of Branch.

DEPARTMENT OF THE INTERIOR,
LAND PATENTS BRANCH,
OTTAWA, July 3, 1911.

2 GEORGE V., A. 1912

10.—STATEMENT showing number of Homestead Entries made during the Fiscal Year, 1910-11, as compared with Fiscal Year, 1909-10.

Agency.	Manitoba.		Saskatchewan.		Alberta.		British Columbia.		Remarks.
	1910-11.	1909-10.	1910-11.	1909-10.	1910-11.	1909-10.	1910-11.	1909-10.	
Battleford.....			2,215	1,905					
Brandon.....	76	111							
Calgary.....					5,450	6,255			
Dauphin.....	1,012	1,062							
Edmonton.....					5,112	4,107			
Estevan.....			1,033	884					
Humboldt.....			1,738	1,609					
Kamloops.....							202	257	
Lethbridge.....					933	4,948			
Medicine Hat.....			1,589		2,146				
Moosejaw.....			5,285	10,901					
New Westminster.....							4	20	
Peace River.....					291	53			No. of entries for fiscal year 1910-11 = 44,479.
Prince Albert.....			1,871	1,240					
Regina.....			435	567					No. of entries for fiscal year 1909-10 = 41,568.
Red Deer.....					2,032	1,824			
Saskatoon.....			4,178	3,226					
Swift Current.....			5,568						Net increase for fiscal year 1910-11 = 2,911.
Winnipeg.....	1,994	1,356							
Yorkton.....			1,315	1,243					
Total.....	3,082	2,529	25,227	21,575	15,964	17,187	206	277	

RECAPITULATION.

Month.	Manitoba.		Saskatchewan.		Alberta.		British Columbia.		Remarks.
	1910.	1909.	1910.	1909.	1910.	1909.	1910.	1909.	
1909.									
April.....	144	152	642	976	568	1,558	6	12	
May.....	121	161	836	1,069	677	1,007	9	17	
June.....	200	202	1,610	2,688	1,172	1,901	14	28	
July.....	324	231	4,240	2,393	2,620	1,934	25	44	
August.....	281	170	3,745	1,611	2,328	1,433	20	29	
September.....	354	268	3,440	2,347	1,985	1,569	23	21	
October.....	307	300	2,576	2,304	1,356	1,617	21	27	
November.....	261	192	1,958	1,418	1,258	1,194	23	28	
December.....	258	187	1,530	1,316	1,077	1,386	16	13	Fiscal year 1910-11 = 44,479.
1910.									
January.....	364	269	1,845	1,816	1,100	1,437	16	28	
February.....	309	254	1,783	2,491	1,073	1,384	18	14	Fiscal year 1909-10 = 41,568.
March.....	159	143	1,028	1,146	750	767	15	16	
Total.....	3,082	2,529	25,227	21,575	15,964	17,187	206	277	

N. O. COTE,

Chief of Branch.

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11.—STATEMENT showing number of Homestead Entries granted in the Provinces of Manitoba, Saskatchewan, Alberta and British Columbia for Fiscal Year 1910-1911, as compared with Fiscal Year, 1909-1910.

MANITOBA.

Agencies.	1910-11.	1909-10.	In-crease.	De-crease.	Total, 1910-11.	Total, 1909-10.	In-crease, 1910-11.	De-crease, 1909-10.
Winnipeg.	1,994	1,356	638					
Dauphin.	1,012	1,062		50				
Brandon.	76	111		35				
	3,082	2,529	638	85	3,082	2,529	553	

SASKATCHEWAN.

Yorkton.	1,315	1,243	72					
Estevan.	1,033	884	149					
Regina.	435	567		132				
Humboldt.	1,738	1,609	129					
Prince Albert.	1,871	1,240	631					
Moosejaw.	5,285	10,901		5,616				
Medicine Hat.	1,589		1,589					
Battleford.	2,215	1,905	310					
Swift Current.	5,568		5,568					
Saskatoon.	4,178	3,226	952					
	25,227	21,575	9,400	5,748	25,227	21,575	3,652	

ALBERTA.

Calgary.	5,450	6,255		805				
Lethbridge.	933	4,948		4,015				
Red Deer.	2,032	1,824	208					
Edmonton.	5,112	4,107	995					
Peace River.	291	53	233					
Medicine Hat.	2,146		2,146					
	15,964	17,187	3,587	4,820	15,964	17,187		1,223

BRITISH COLUMBIA.

Kamloops.	202	257		55				
New Westminster.	4	20		16				
	206	277		71	206	277		71

Grand total for fiscal year 1910-11.					44,479			
do do 1909-10.						41,568		
Net increase for fiscal year 1910-11.					2,911		4,205	1,294

N. O. COTE,

Chief of Branch.

DEPARTMENT OF THE INTERIOR,

LAND PATENTS BRANCH,

OTTAWA, July 3, 1911.

2 GEORGE V., A. 1912

12.—STATEMENT showing the number of Homestead Entries made during the Fiscal Year 1910-1911, the Nationality of the Homesteaders and the Provinces in which the entries were made.

Nationalities.	PROVINCES.				Total.
	Manitoba.	Saskatche- wan.	Alberta.	British Columbia.	
Canadians from Ontario	124	2,338	1,952	24	4,438
" Quebec	38	629	427	7	1,101
" Nova Scotia	53	77	105	2	237
" New Brunswick		52	86	2	140
" Prince Edward Island	2	37	28	1	68
" Manitoba	457	836	200	2	1,495
" Saskatchewan	4	3,912	145		4,061
" Alberta	2	73	905		980
" British Columbia		44	82	10	136
Persons who had previous entry	414	643	763	14	1,834
Newfoundlanders	1	4	2		7
Canadians returned from the United States	16	359	178		553
Americans	194	7,017	5,234	40	12,485
English	385	3,543	2,170	63	6,161
Scotch	109	636	531	15	1,291
Irish	37	212	234	9	492
French	52	243	81		376
Belgians	16	68	47	2	133
Swiss	10	21	43		74
Italians	1	30	33	4	68
Roumanians	10	140	25		175
Syrians	2	60	2		64
Germans	87	461	295	2	845
Austro-Hungarians	630	1,309	862	3	2,804
Hollanders	51	45	105		201
Danes (other than Icelanders)	22	93	91		206
Icelanders	54	36	6		96
Swedes	77	493	366	1	937
Norwegians	23	695	374		1,092
Russians (other than Mennonites and Douk- hobors)	199	1,085	573	1	1,858
Mexican		1			1
Mennonites	6				6
Arabian		1			1
Chinese		1	1	3	5
Japanese		2	1		3
Persians		8	1		9
Australians		4	5	1	10
New Zealanders		1	5		6
Algerians	1				1
Hindoos	1	3			4
Greek	2	8	3		13
Turk	1	3	1		5
Spanish	1		1		2
Palestine		1			1
Servians		3			3
Chilians			1		1
Total	3,082	25,227	15,964	206	44,479
Number of souls represented by above entries					107,884

N. O. COTE,
Chief of Branch.

DEPARTMENT OF THE INTERIOR,
LAND PATENTS BRANCH,
OTTAWA, July 3, 1911.

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13.—COMPARATIVE Statement showing the number of Homestead Entries made during the Fiscal Years ended March 31, 1910 and 1911, and the Nationality of the Homesteaders, as reported by the several agencies of the department in Manitoba, Saskatchewan, Alberta and British Columbia.

Nationalities.	No. of Entries, 1910.	No. of Entries, 1911.
Canadians from Ontario	3,953	4,438
" " Quebec	964	1,101
" " Nova Scotia	188	237
" " New Brunswick	130	140
" " Prince Edward Island	93	68
" " Manitoba	1,434	1,496
" " Saskatchewan	3,307	4,061
" " Alberta	1,219	980
" " British Columbia	182	136
Persons who had previous entry	2,274	1,834
Newfoundlanders	10	7
Canadians returned from the United States	753	553
Americans	12,813	12,485
English	5,459	6,161
Scotch	1,326	1,291
Irish	546	492
French	360	376
Belgians	160	133
Swiss	60	74
Italians	21	68
Roumanians	71	175
Syrians	42	64
Germans	688	845
Austro-Hungarians	2,361	2,804
Hollanders	102	201
Danes (other than Icelanders)	147	206
Icelanders	130	96
Swedes	818	937
Norwegians	843	1,092
Russians (other than Mennonites and Doukhobors)	1,061	1,858
Mennonites	6	6
Doukhobors	3	5
Chinese	8	3
Japanese	2	9
Persians	2	3
Australians	3	10
New Zealanders	5	6
Greeks	3	13
Hindoes	14	4
Bulgarians	5	1
Servians	1	3
Spaniards	1	2
Turks	1	7
Algerians	1	1
Chilians	1	1
Mexicans	1	1
Total	41,568	44,479

Representing 101,286 souls in 1910.
Representing 107,884 souls in 1911.

N. O. COTE,

Chief of Branch.

DEPARTMENT OF THE INTERIOR,
LAND PATENTS BRANCH,
OTTAWA, July 3, 1911.

2 GEORGE V., A. 1912

14.—STATEMENT showing the number of Homestead Entries made in the Provinces of Manitoba, Saskatchewan, Alberta and British Columbia during the Fiscal Year 1910-1911, by persons coming from the United States of America.

States.	PROVINCES.				TOTAL.
	Man.	Sask.	Alta.	B. C.	
Arizona			4	2	6
Alabama			11		11
Alaska			1		1
Arkansas		7	14		21
California		19	62	2	83
Carolina, North	5	3	20	1	29
Carolina, South	4	5	3		12
Colorado	1		15		16
Columbia, District of					
Connecticut	2	7	16		25
Dakota, North	87	3,111	1,140	1	4,339
Dakota, South	7	473	301	1	782
Delaware			1		1
Florida			1		1
Georgia		3	3		6
Idaho		58	169	1	228
Illinois	10	183	213	3	409
Indiana		123	94	2	219
Indian Territory					
Iowa		297	301		598
Kansas	1	63	133	3	200
Kentucky		9	41		50
Louisiana			4		4
Maine		28	19	4	51
Maryland		2	3		5
Massachusetts	1	44	48		93
Michigan	4	309	332	5	650
Minnesota	52	1,531	648		2,231
Mississippi			10		10
Missouri	2	48	95	2	147
Montana	4	94	147	1	246
Nebraska	1	76	123		200
Nevada			3		3
New Hampshire	1	17	11		29
New Jersey	2	5	8	1	16
New Mexico		1			1
New York	6	89	109	1	205
Ohio	4	68	111		183
Oklahoma		35	64		99
Oregon	1	20	135	1	157
Pennsylvania		47	78	1	126
Rhode Island	2	9	8		19
Tennessee		9	25		34
Texas		8	24		32
Utah		6	13		19
Vermont	3	10	11		24
Virginia		3	11		14
Virginia, West		5	7		12
Washington	2	116	562	3	683
Wisconsin	8	431	236	3	678
Wyoming		5	23	2	30
	210	7,377	5,411	40	13,038

N. O. COTE,
Chief of Branch.

DEPARTMENT OF THE INTERIOR,
LAND PATENTS BRANCH,
OTTAWA, July 3, 1911.

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15.—COMPARATIVE Statement showing the number of Homestead Entries made during the Fiscal Years ended March 31, 1910 and 1911, by persons coming from the various States and Territories of the American Union.

States.	No. of entries, 1910.	No. of entries, 1911.
Arizona.....	6	6
Alabama.....	6	11
Alaska.....	9	1
Arkansas.....	9	21
California.....	99	83
Carolina, North.....	16	29
Carolina, South.....	2	12
Colorado.....	26	16
Columbia, District of.....		
Connecticut.....	7	25
Dakota, North.....	4,736	4,339
Dakota, South.....	936	782
Delaware.....		1
Florida.....		1
Georgia.....	3	6
Idaho.....	277	228
Illinois.....	387	409
Indiana.....	207	219
Indian Territory.....		
Iowa.....	545	598
Kansas.....	181	200
Kentucky.....	44	50
Louisiana.....	4	4
Maine.....	36	51
Maryland.....	2	5
Massachusetts.....	103	93
Michigan.....	670	650
Minnesota.....	2,347	2,231
Mississippi.....		10
Missouri.....	156	147
Montana.....	266	246
Nebraska.....	167	200
Nevada.....	10	3
New Hampshire.....	20	29
New Jersey.....	10	16
New Mexico.....	8	1
New York.....	196	205
Ohio.....	167	183
Oklahoma.....	110	99
Oregon.....	210	157
Pennsylvania.....	96	126
Rhode Island.....	6	19
Tennessee.....	27	34
Texas.....	35	32
Utah.....	32	19
Vermont.....	10	24
Virginia.....	6	14
Virginia, West.....	22	12
Washington.....	670	683
Wisconsin.....	642	678
Wyoming.....	38	30
	13,566	13,038

N. O. COTE,

Chief of Branch.

DEPARTMENT OF THE INTERIOR,

LAND PATENTS BRANCH,

OTTAWA, July 3, 1911.

2 GEORGE V., A. 1912

16.—The following statement shows the number of homestead entries reported in each year since 1874:—

Departmental Year Ended	No. of Entries.
October 31, 1874.	1,376
" 31, 1875.	499
" 31, 1876.	347
" 31, 1877.	845
" 31, 1878.	1,788
" 31, 1879.	4,068
" 31, 1880.	2,074
" 31, 1881.	2,753
" 31, 1882.	7,483
" 31, 1883.	6,063
" 31, 1884.	3,753
" 31, 1885.	1,858
" 31, 1886.	2,657
" 31, 1887.	2,036
" 31, 1888.	2,655
" 31, 1889.	4,416
" 31, 1890.	2,955
" 31, 1891.	3,523
" 31, 1892.	4,840
" 31, 1893.	4,067
" 31, 1894.	3,209
Dec. 31, 1895.	2,394
" 31, 1896.	1,857
" 31, 1897.	2,384
" 31, 1898.	4,848
" 31, 1899.	6,689
June 30, 1900.	7,426
" 30, 1901.	8,167
" 30, 1902.	14,673
" 30, 1903.	31,383
" 30, 1904.	26,073
" 30, 1905.	30,819
" 30, 1906.	41,869
Nine months ended March 31, 1907.	21,647
Year ended March 31, 1908.	30,424
" " 1909.	39,081
" " 1910.	41,568
" " 1911.	44,479

N. O. COTE,

Chief of Branch.

DEPARTMENT OF THE INTERIOR,
LAND PATENTS BRANCH,
OTTAWA, July 3, 1911.

SESSIONAL PAPER No. 25

17.—STATEMENT showing the number of Pre-emptions, Purchased Homesteads and South African Veteran Homesteads granted in each Land Agency during the Fiscal Year, 1910-1911 (from April 1, 1910, to March 31, 1911).

Agency.	Pre-emptions.	Purchased Homesteads.	South African Veteran Homesteads.
Battleford.....	305	113	144
Brandon.....			
Calgary.....	3,568	147	370
Dauphin.....	16	35	7
Edmonton.....	539	52	142
Estevan.....			42
Humboldt.....			51
Lethbridge.....	315	57	20
Moosejaw.....	3,366	264	199
Medicine Hat.....	2,610 [*]	94 [†]	243 [‡]
New Westminster.....			
Peace River.....			102
Prince Albert.....	4	7	39
Regina.....	16	8	8
Red Deer.....	372	191	48
Saskatoon.....	1,202	578	184
Swift Current.....	3,305	214	360
Winnipeg.....			3
Yorkton.....			11
Total.....	15,618	1,760	1,973

* 1,409 in Alberta, 1,201 in Saskatchewan.

† 57 in Alberta, 37 in Saskatchewan.

‡ 96 in Alberta, 147 in Saskatchewan.

Provinces.	Pre-emptions.	Purchased Homesteads.	South African Veteran Homesteads.
Manitoba.....			10
Saskatchewan.....	9,938	1,273	1,185
Alberta.....	5,680	487	778
British Columbia.....			
Total.....	15,618	1,760	1,973

N. O. COTE,

Chief of Branch.

DEPARTMENT OF THE INTERIOR,

LAND PATENTS BRANCH,

OTTAWA, July 3, 1911.

2 GEORGE V., A. 1912

18.—STATEMENT showing the number of Homesteads, Pre-emptions, Purchased Homesteads and South African Volunteer Homesteads granted during each month from April 1, 1910, to March 31, 1911.

Month.	Homesteads.	Pre-emptions.	Purchased Homesteads.	South African Volunteer Homesteads.
1910.				
April.....	7,209	3,236	210	388
May.....	6,374	2,567	247	313
June.....	5,802	2,254	232	216
July.....	4,260	1,434	150	187
August.....	3,500	1,018	147	143
September.....	2,881	873	122	117
October.....	3,325	994	131	111
November.....	3,183	939	111	121
December.....	1,952	577	104	96
1911.				
January.....	1,360	366	80	76
February.....	1,637	472	105	71
March.....	2,996	888	121	134
Total.....	44,479	15,618	1,760	1,973

N. O. COTE,

Chief of Branch.

DEPARTMENT OF THE INTERIOR,

LAND PATENTS BRANCH,

OTTAWA, July 3, 1911.

19.—STATEMENT showing South African Volunteer Bounty Land Certificates of 320 acres each, issued under the Volunteer Bounty Act, 1908, by the Department of the Interior, during the Fiscal Year ended March 31, 1911.

	No.	Acres.
Certificates issued.....	294	94,080
Certificates located.....	1,973	631,360

N. O. COTE,

Chief of Branch.

DEPARTMENT OF THE INTERIOR,

LAND PATENTS BRANCH,

OTTAWA, July 3, 1911.

SESSIONAL PAPER No. 25

20.—STATEMENT of entries affecting Dominion Lands which were made at Head Office during the year ended March 31, 1911.

	No. of Grants.	Acres.
Special grants..	194	6,465.00
Alberta Railway and Irrigation Co.. .	96	66,612.05
Calgary and Edmonton Railway Co.. .	...	5,393.05
Canadian Northern Railway Co.. . .	...	29,004.92
Can. Pac. Ry. Co. (main line).. . . .	...	5,283.63
“ “ (Souris br.).. . . .	...	14,936.00
“ “ (Pipestone extension Souris branch).. . . . .	...	78,497.90
Manitoba South-Eastern Railway Co..	...	2,252.12
Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Co.. . . .	...	2,192.32
Area sold and patented to Grand Trunk Pacific for townsites.. . . . .	...	587.97
Area granted to Grand Trunk Pacific for right-of-way.. . . . .	...	2,127.27
Railway right-of-way..	319	4,867.46
Hudson's Bay Company's grants.. . .	27	233,605.00

N. O. COTE,

Chief of Branch.

DEPARTMENT OF THE INTERIOR,

LAND PATENTS BRANCH,

OTTAWA, July 3, 1911.

21.—The following is a comparative statement of the Homestead Entries and sales made during the Fiscal Years ending March 31, 1910, and March 31, 1911, respectively.

	FISCAL YEAR ENDING MARCH 31, 1910.		FISCAL YEAR ENDING MARCH 31, 1911.	
	No. of Entries.	Acres.	No. of Entries.	Acres.
Homesteads.....	41,568	6,650,880	44,479	7,116,640
Sales.....	.....	49,864	.....	443,673

N. O. COTE,

Chief of Branch.

DEPARTMENT OF THE INTERIOR,

LAND PATENTS BRANCH,

OTTAWA, July 3, 1911.

2 GEORGE V., A. 1912

22.—STATEMENT showing the number of Assignments recorded in the Land Patents Branch during the Fiscal Year ended March 31, 1911.

Number of deeds registered. 469
 Fees received in connection therewith. \$901.50

N. O. COTE,

Chief of Branch.

DEPARTMENT OF THE INTERIOR,

LAND PATENTS BRANCH,

OTTAWA, July 3, 1911.

23.—STATEMENT showing the number of entries cancelled during the year ended March 31, 1911, also the year in which such entries were made.

Year.	Homesteads.	Purchased Homesteads.	Pre-emptions.	Time Sales.	Sales.
1882			2		
1883	1				
1884			1		
1885					
1886			2		
1887			2		
1888	1				
1889	3		2		
1890					
1891					
1892	1				1
1893					
1894					
1895	1				
1896					
1897					
1898	8				1
1899	4				
1900	7				
1901	17				
1902	30				
1903	85				
1904	125				
1905	313				
1906	1,230			3	
1907	1,064			3	
1908	3,031	20	794	8	
1909	7,880	38	3,117	7	
1910	8,368	105	3,171	10	
1911	13		4		
	22,122	163	7,095	31	2

N. O. COTE,

Chief of Branch.

DEPARTMENT OF THE INTERIOR,

LAND PATENTS BRANCH,

OTTAWA, July 3, 1911.

No. 40.

REPORT OF THE CHIEF GEOGRAPHER.

DEPARTMENT OF THE INTERIOR,

OFFICE OF THE CHIEF GEOGRAPHER,

OTTAWA, June 27, 1911.

W. W. CORY, Esq., C.M.G.

Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to report as follows on the work of my office for the fiscal year 1910-1911.

The staff as constituted at the end of the period mentioned was as follows:—

Division I.—Grade B.

Chalifour, J. E., Assistant Chief Geographer and Chief Draughtsman.

Division II.—Grade A.

Baine, H. E.,
Taché, Henri,
Anderson, Wm.,

Inkster, Fred.,
Bryant, E. D.,
Beveridge, Jas.

Division II.—Grade B.

Akerlindh, Alf.,
Darrach, A. M.,
Blatchley, H.,
Dumouchel, Geo.,
Wilson, H. W.,
Linell, A. A.,
Chandler, S.,

Bennie, J. K.,
Craig, R. W.,
Groulx, Alb.,
McElligott, J. P.,
Blue, W. A.,
Pigeon, Jules,
Gagnon, J. S.

Division III.—Grade B.

Waine, Mrs.,

Stewart, Miss M.,

Merrifield, J. R.

Of the standard topographical sheets, the following have been issued during the year: Part of Sheet 14, Prince Edward Island; Sheet 5 N.W., Halifax; Sheet 31 S.E., Lake Abitibi; Sheet 31, Mattagami.

A map showing the whole province of British Columbia was issued for distribution. Two maps, eight by fifteen feet, were prepared for the Department of Agriculture for use at the various expositions where Canada is making an exhibit, one showing the position of mineral deposits, the other giving in colours the railway lines of Canada. A general map of Canada on the scale of 25 miles was made for permanent exhibition at the Imperial Institute, London, England, showing railroad systems by a system of colours.

2 GEORGE V., A. 1912

New editions have been published of the large railway map of Canada, scale 35 miles to one inch, and of the smaller railway map, scale 100 miles to one inch; western Canada; northern and southern Alberta, southern Saskatchewan, British Columbia; British Columbia railway belt; elevator map; homestead maps of Manitoba, Saskatchewan and Alberta, and land district maps of the following Dominion land agencies: Winnipeg, Dauphin, Estevan, Red Deer, Humboldt, Yorkton, Prince Albert, Regina, Moosejaw, Battleford, Edmonton, Calgary and Lethbridge; British Columbia railway belt sectional sheets, Port Moody and Yale, Kamloops and Lytton, Donald and Sicamous; cereal map.

I have the honour to be, sir,

Your obedient servant,

R. E. YOUNG.

Chief Geographer.

LIST OF MAP PUBLICATIONS.

Dominion of Canada and Newfoundland, eight sheets, each 25 inches by 36 inches; extends from the Atlantic to the Pacific and from Maryland and Oregon on the south to Cumberland sound and Herschell island on the north. Scale, 35 miles to 1 inch. Editions in colours showing territorial divisions of the Dominion, in black and blue (water) and in black only.

Dominion of Canada and Newfoundland, 16 inches by 36 inches. Scale, 100 miles to 1 inch. Editions in colors showing territorial divisions of the Dominion, in black and blue (water) and in black only.

Dominion of Canada. Scale, 58 miles to 1 inch.

Relief map of Canada. Scale, 100 miles to 1 inch.

Resource map of Canada. Scale, 1/12,500,000 or 197.3 miles to 1 inch.

Explorations in northern Canada and adjacent portions of Greenland and Alaska. Scale, 75 miles to 1 inch.

Rocky Mountains—Banff sheet—contoured map of mountains in the vicinity of Banff. Scale, 2 miles to 1 inch.

Western Canada map, 4 sheets, each 25 by 36 inches; extends from the Lake of the Woods to the Pacific ocean, and from Juan de Fuca strait to Herschell island on the north. Scale, 35 miles to 1 inch, railways shown in colours. Editions in colours showing the territorial divisions of Manitoba, Saskatchewan, Alberta, British Columbia, Yukon and part of the Northwest Territories, in black and blue (water).

Southeastern Alaska and portion of British Columbia. Edition of 1897. Scale, 1/960,000.

Southeastern Alaska and portion of British Columbia, showing award of Alaska Boundary Tribunal, October 20, 1903. Scale, 1/960,000.

Yukon. Extends from Lynn canal on the south to Eagle on the north, and from the Pacific to the Frances river. Scale, 1/750,000 or 11.82 miles to 1 inch.

White, Alsek and Kluane rivers district, southwestern Yukon. Scale, 1/400,000 or 6.31 miles to 1 inch.

Rocky Mountains between latitude 51° and 53° 10', in two sheets, contoured. Scale, 4 miles to 1 inch.

STANDARD TOPOGRAPHICAL SHEETS.

Sheet 1 S.W., Ontario—Windsor sheet. Essex, Kent and Lambton and portions of Elgin, Middlesex, and Huron counties. Scale 1/250,000 or 3.95 miles to 1 inch.

SESSIONAL PAPER No. 25

Sheet 1 S.E., Ontario—London sheet. Norfolk, Oxford, Brant and portions of Elgin, Middlesex, Huron, Perth, Waterloo and Wentworth counties. Scale, 1/250,000 or 3.95 miles to 1 inch.

Sheet 2 S.W., Ontario—Hamilton sheet. Lincoln, Welland, Haldimand and portions of Wentworth and Halton counties. Scale, 1/250,000 or 3.95 miles to 1 inch.

Sheet 2 N.W., Ontario—Toronto sheet. Peel, York, Ontario and Victoria and portions of Halton, Simcoe, Dufferin, Muskoka, Durham and Peterborough counties. Scale 1/250,000 or 3.95 to 1 inch.

Sheet 2 N.E., Ontario—Belleville sheet. Northumberland, Prince Edward and portions of Durham, Peterborough, Hastings, Lennox and Addington counties. Scale 1/250,000 or 3.95 miles to 1 inch.

Sheet 1 N.W. and 1 N.E., Ontario—Guelph sheet. Wellington, Grey, Bruce and portions of Durham, Peterborough, Hastings, Lennox and Addington counties. Scale 1/250,000 or 3.95 miles to 1 inch.

Sheet 5 N.E. and 14 S.E.—Truro sheet. Pictou and portions of Antigonish, Guysborough, / Halifax, Colchester, Cumberland and Hants counties. Scale 1/250,000 or 3.95 miles to 1 inch.

Sheet 5 N.W.—Halifax sheet. Kings and Lunenburg and portions of Queens, Annapolis, Hants and Halifax counties. Scale 1/250,000 or 3.95 miles to 1 inch.

Sheet 8 N.E.—Gowganda sheet. Portions of Sudbury and Nipissing districts. Scale 1/250,000 or 3.95 miles to 1 inch.

Sheet 9 S.E.—Pembroke sheet. Portions of Haliburton, Nipissing, Hastings, Renfrew, Frontenac and Lennox and Addington counties, Ont., and Pontiac county, Que. Scale 1/250,000 or 3.95 miles to 1 inch.

Sheet 9 N.W.—Timiskaming sheet. Parts of Nipissing district, Ont., and Pontiac county, Que. Scale 1/250,000 or 3.95 miles to 1 inch.

Sheet 10 S.W.—Ottawa sheet. Portions of Carleton, Renfrew, Lanark, Dundas and Frontenac counties, Ont., and Pontiac county, Que. Scale 1/250,000 or 3.95 miles to 1 inch.

Sheet 11.—Montreal sheet. Includes the country between Quebec and Vaudreuil and between the International boundary and lat. 48 north. Scale 1/500,000 or 7.89 miles to 1 inch.

Sheet 13.—Includes the whole of New Brunswick with the exception of Madawaska and portions of Westmoreland and Albert counties. Scale 1/500,000 or 7.89 miles to 1 inch.

Part of sheet 14.—The whole of Prince Edward Island. Scale, 3.95 miles to 1 inch.

Sheet 15 N.W., 15 S.W., and 15 S.E., Cape Breton island and portions of Antigonish and Guysborough counties. Scale 1/250,000 or 3.95 miles to 1 inch.

Sheet 18—British Columbia, Kamloops sheet. Scale 1/500,000 or 7.89 miles to 1 inch.

Sheet 19, British Columbia—West of Kootenay sheet. Scale, 1/500,000 or 7.89 miles to 1 inch.

Sheet 27, Ontario—Lake of the Woods sheet. Rainy River district and portions of Thunder Bay district and Keewatin district. Scale 1/500,000 or 7.89 miles to 1 inch.

Sheet 28, English River sheet. Portions of Rainy River and Thunder Bay districts. Scale 1/500,000 or 7.89 miles to 1 inch.

Sheet 30—Michipicoten sheet. Includes parts of Thunder Bay district. Scale 1/500,000 or 7.89 miles to 1 inch.

Sheet 31—Mattagami. Portions of Sudbury and Nipissing. Scale, 1/500,000 or 7.89 miles to 1 inch.

2 GEORGE V., A. 1912

Sheet 31 S.E.—Abitibi. Portions of Sudbury and Nipissing. Scale, 1/250,000 or 3.95 miles to 1 inch.

Map of Manitoba, Saskatchewan and Alberta and portions of British Columbia and Northwest Territories. Four sheets each 25 inches by 36 inches. Scale 12½ miles to 1 inch.

Manitoba. Scale 12½ miles to 1 inch.

Alberta. In two sheets. Scale 12½ miles to 1 inch.

Southern Alberta, showing lands patented, Indian reserves, timber berths, coal seams. Scale 12½ miles to 1 inch.

Homestead map of Manitoba, Saskatchewan and Alberta, showing in separate colours odd numbered and even numbered sections disposed of prior to January 1, 1911, also forest reserves, timber berths and grazing leases. Three sheets. Scale, 12½ miles to 1 inch.

Homestead map of northern Alberta including Peace River district, showing in separate colours odd numbered and even numbered sections disposed of prior to January 1, 1911, forest reserves, timber berths. Scale, 12½ miles to 1 inch.

Homestead map of southern Alberta, showing odd numbered and even numbered sections disposed of prior to January 1, 1911, forest reserves, timber berths and grazing leases. Scale 12½ miles to 1 inch.

Homestead map of Saskatchewan, showing odd numbered and even numbered sections disposed of prior to January 1, 1911, forest reserves, timber berths and grazing leases. Two sheets. Scale, 12½ miles to 1 inch.

Battleford Land District map. Scale, 12½ miles to 1 inch.

Brandon Land District map. Scale, 12½ miles to 1 inch.

Calgary Land District map. Scale, 12½ miles to 1 inch.

Dauphin Land District map. Scale, 12½ miles to 1 inch.

Edmonton Land District map. Scale, 12½ miles to 1 inch.

Estevan Land District map. Scale, 12½ miles to 1 inch.

Humboldt Land District map. Scale, 12½ miles to 1 inch.

Lethbridge Land District map. Scale, 12½ miles to 1 inch.

Medicine Hat Land District map. Scale, 12½ miles to 1 inch.

Moosejaw Land District map. Scale, 12½ miles to 1 inch.

Peace River Land District map. Scale, 12½ miles to 1 inch.

Prince Albert Land District map. Scale, 12½ miles to 1 inch.

Red Deer Land District map. Scale, 12½ miles to 1 inch.

Saskatoon Land District map. Scale, 12½ miles to 1 inch.

Swift Current Land District map. Scale, 12½ miles to 1 inch.

Winnipeg Land District map. Scale, 12½ miles to 1 inch.

Yorkton Land District map. Scale, 12½ miles to 1 inch.

British Columbia Railway Belt map, showing in colours lands disposed of in the 'Railway Belt,' and general topographical features south to the international boundary. Two sheets. Scale 1/500,000 or 7.89 miles to 1 inch.

Index map—showing townships in Manitoba, Saskatchewan and Alberta and the Railway Belt of British Columbia, plans of which have been printed. Scale, 35 miles to 1 inch.

Elevator map—showing grain elevators in Manitoba, Saskatchewan and Alberta. Scale, 25 miles to 1 inch.

Rocky Mountains—Lake Louise sheet. Contoured map of mountains in the vicinity of Laggan and Field. Scale, 2 miles to 1 inch.

Cereal maps—Manitoba, Saskatchewan and Alberta. Showing quantity and proportion of grains grown in each township. Scale, 25 miles to 1 inch.

SESSIONAL PAPER No. 25

MAPS IN PROGRESS.

Standard Topographical Sheets.

Sheet 10, S.E.—Cornwall sheet. Shows the lower Ottawa district between the international boundary and lat $46^{\circ} 30'$ N. Scale, 1/250,000 or 3.95 miles to 1 inch.

Sheet 11, S.W.—Montreal sheet. Includes from Vaudreuil to Three Rivers, and between the international boundary and lat. $46^{\circ} 30'$ N. Scale, 1/250,000 or 3.95 miles to 1 inch.

Sheet 11, S.E.—Sherbrooke sheet. Includes from Three Rivers to the Island of Orleans, and between the international boundary and lat. $46^{\circ} 30'$ N. Scale, 1/250,000 or 3.95 miles to 1 inch.

Sheet 12, N.W.—Montmagny sheet. Includes from the Island of Orleans to Rivière du Loup, between lat. $46^{\circ} 30'$ and lat. 48° N. Scale, 1/250,000 or 3.95 miles to 1 inch.

Sheet 12, N.E.—Temiscouata sheet. Includes from Cacouna to near St. Leonard, N.B., between the international boundary and lat. 48° N. Scale, 1/250,000 or 3.95 miles to 1 inch.

Sheet 12, S.W.—Megantic sheet, showing part of Bellechasse, Dorchester, Beauce and Compton counties. Scale, 1/250,000 or 3.95 miles to 1 inch.

Sheet 14, S.W.—Moncton sheet, showing parts of New Brunswick, Nova Scotia and Prince Edward Island. Scale, 1/250,000 or 3.95 miles to 1 inch.

Sheet 4, N.E.—Yarmouth sheet. Showing Digby, Yarmouth, Shelburne and parts of Annapolis and Queens, Nova Scotia. Scale, 1/250,000 or 3.95 miles to 1 inch.

Sheet 7, Sault Ste. Marie. Scale, 1/250,000 or 3.95 miles to 1 inch.

Sheet 8, N.W. Bisko sheet. Scale, 1/250,000 or 3.95 miles to 1 inch.

Sheet 8, S.W.—Manitoulin sheet. Scale, 1/250,000 or 3.95 miles to 1 inch.

Sheet 8, S.E.—French River sheet. Scale, 1/250,000 or 3.95 miles to 1 inch.

Sheet 9, S.W.—Parry Sound sheet (to complete). Scale, 1/250,000 or 3.95 miles to 1 inch.

Sheet 9, S.E.—Pembroke sheet (to complete). Scale, 1/250,000, or 3.95 miles to 1 inch.

Sheet 12—Between latitude 45° and $48^{\circ} 20'$ and long. 68° to 71° W. Scale, 1/500,000 or 7.89 miles to 1 inch.

Sheet 41, Prince Rupert sheet. Scale, 1/500,000 or 7.89 miles to 1 inch.

Sheet 45—Jasper House sheet. Scale, 1/500,000 or 7.89 miles to 1 inch.

OTHER MAPS.

Milling map of Ontario and Quebec—showing grain elevators and flour, oatmeal and feed mills.

Bank maps of British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec and the maritime provinces, showing locations of all branches of chartered banks.

Water-power map of Canada. Scale, 50 miles to 1 inch. Giving latest and most complete information obtainable as to location of all water-powers in the Dominion, both developed and undeveloped.

2 GEORGE V., A. 1912

No. 41.

REPORT OF THE SURVEY RECORDS BRANCH.

DEPARTMENT OF THE INTERIOR,

SURVEY RECORDS BRANCH,

OTTAWA, April 22, 1911.

W. W. CORY, Esq., C.M.G.,

Deputy Minister of the Interior,

Ottawa.

SIR,—I beg to submit herewith the report of the work of the Survey Records Branch, for the twelve months ending March 31, 1911.

During the past year there has been a slight decrease in the regular routine work of this branch as shown by the detailed returns herewith.

The demand for hand-made copies of township plans at present out of print, has, however, increased steadily, and during a large portion of the year two draughtsmen were unable to keep up with the demand for them.

An index of lands recently opened for entry is now kept, so that replies concerning the same may be readily given from this branch.

The rapid increase in printed plans stored here, and in original plans and field notes on record has practically used all the available space in the office. A request has been made for part of the space formerly occupied by the School Lands Branch, but so far it is not available. In the meantime, the steady inflow of new matter for storage keeps up and if not provided for, congestion and serious delay in getting at the records are sure to result.

The efficiency of the staff has been seriously affected by the large amount of illness of different members through the year.

Appended hereto are schedules giving details of the work of the branch.

Your obedient servant,

C. J. STEERS,

Clerk in Charge.

SESSIONAL PAPER No. 25

REPORT of work performed in the Survey Records Branch for year ending March 31, 1911

Files received and dealt with.. . . .	17,644
Letters drafted.. . . .	5,774
Plans, tracings, &c., copied and compiled.. . . .	3,183
Statutory declarations copied.. . . .	118
Plans sent agents, registrars, &c.. . . .	19,894
Plans sent in answer to special requests.. . . .	22,559
Pages of field notes copied.. . . .	994
Prints of plans received and stored.. . . .	128,746
Original plans received and recorded.. . . .	1,099
Field notes received and recorded.. . . .	722
Descriptions written for patents.. . . .	28
Letters to agents, registrars, &c.. . . .	1,367
Registered parcels mailed.. . . .	2,188
Original township plans copied.. . . .	189

WORK PERFORMED FOR TOPOGRAPHICAL SURVEYS BRANCH.

Books searched for.. . . .	6,566
Books sent.. . . .	5,351
Books returned.. . . .	4,804
Plans searched for.. . . .	2,432
Plans sent.. . . .	1,898
Plans returned.. . . .	682
Volumes searched for.. . . .	165
Volumes sent.. . . .	119
Volumes returned.. . . .	101

WORK PERFORMED FOR PATENTS BRANCH.

Plans searched for.. . . .	731
Plans sent.. . . .	699
Plans returned.. . . .	662
Books searched for.. . . .	261
Books sent.. . . .	250
Books returned.. . . .	442

WORK PERFORMED FOR OTHER BRANCHES.

Plans searched for.. . . .	310
Plans sent.. . . .	307
Plans returned.. . . .	247
Books searched for.. . . .	531
Books sent.. . . .	468
Books returned.. . . .	328

PART II.
IMMIGRATION.

IMMIGRATION.

REPORT OF THE SUPERINTENDENT OF IMMIGRATION.

DEPARTMENT OF THE INTERIOR,

OTTAWA, April 25, 1911.

W. W. CORY, Esq., C.M.G.,
Deputy Minister of the Interior,
Ottawa, Ont.

SIR,—I have the honour to forward to you herewith the usual annual reports on immigration, and to submit the following statistics compiled in my office:—

IMMIGRANT ARRIVALS.

SUMMARY for the Fiscal Year 1910-11.

Per ocean travel:—		
Quebec.....	106,621	
Halifax.....	33,658	
St. John.....	22,441	
Victoria.....	3,686	
Vancouver.....	2,779	
North Sydney.....	2,718	
New York.....	12,657	
Portland.....	3,639	
Boston.....	756	
Philadelphia.....	650	
Baltimore.....	28	17,730
From the United States.....		189,633
Total.....		121,451
		311,084

COMPARATIVE STATEMENT.

TOTAL Immigration to Canada, via ocean ports, by months, for the Fiscal Year 1910-11, compared with that of the Fiscal Year 1909-10.

	1909-10.				1910-11			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
April.....	8,057	2,021	1,550	11,628	19,420	4,811	3,588	27,819
May.....	10,513	4,283	3,127	17,923	20,856	7,329	5,210	33,395
June.....	6,302	3,030	2,329	11,661	13,437	6,020	4,182	23,639
July.....	4,529	2,326	1,915	8,770	8,630	4,363	3,026	16,019
August.....	3,558	2,213	1,546	7,317	7,258	4,201	2,828	14,287
September.....	3,276	2,352	1,520	7,148	6,540	4,373	2,865	13,773
October.....	3,715	2,451	1,866	8,032	6,017	4,491	3,084	13,592
November.....	2,935	1,690	1,164	5,789	3,813	2,512	1,764	8,089
December.....	2,134	940	689	3,763	2,553	1,373	950	4,906
January.....	1,684	542	348	2,574	1,960	753	433	3,146
February.....	2,991	1,069	576	4,636	3,492	1,486	838	5,816
March.....	11,233	2,612	1,910	15,755	17,350	4,703	3,094	25,147
Totals.....	60,927	25,529	18,540	104,996	111,326	46,415	31,892	189,633

COMPARATIVE STATEMENT.

TOTAL Immigration from the United States to Canada, by months, for the Fiscal Year 1910-11, compared with that of the Fiscal Year 1909-10.

	1909-10.				1910-11.			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
April.....	7,642	2,361	2,606	12,609	11,924	3,951	4,488	20,363
May.....	7,115	1,925	2,067	11,107	8,508	2,938	2,748	14,194
June.....	5,638	1,828	1,742	9,208	6,275	2,486	2,182	10,943
July.....	4,558	1,629	1,156	7,343	5,464	2,046	1,689	9,199
August.....	5,148	1,560	1,308	8,016	6,974	1,886	1,630	10,490
September.....	5,283	1,533	1,366	8,182	6,880	1,780	1,596	10,256
October.....	5,888	1,838	1,502	9,228	6,123	1,863	1,815	9,801
November.....	3,669	1,403	1,223	6,295	4,167	1,632	1,408	7,207
December.....	2,740	1,239	931	4,910	2,934	1,268	1,047	5,249
January.....	2,392	887	785	4,064	2,576	1,013	726	4,315
February.....	3,335	1,162	1,029	5,526	3,011	1,098	780	4,889
March.....	10,014	3,320	3,976	17,310	9,036	2,662	2,847	14,545
Totals.....	63,422	20,685	19,691	103,798	13,872	24,623	22,956	121,451

COMPARATIVE STATEMENT.

TOTAL Immigration for Canada, by months, for the Fiscal Year 1910-11, compared with that of the Fiscal Year, 1909-10.

	FISCAL YEAR, 1909-10.				FISCAL YEAR, 1910-11.			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
April.....	15,699	4,382	4,156	24,237	31,344	8,762	8,076	48,182
May.....	17,628	6,208	5,194	29,030	29,364	10,267	7,958	47,589
June.....	11,940	4,858	4,071	20,869	19,712	8,506	6,364	34,582
July.....	9,087	3,955	3,071	16,113	14,094	6,409	4,715	25,218
August.....	8,706	3,773	2,854	15,333	14,232	6,087	4,458	24,777
September.....	8,559	3,885	2,886	15,330	13,420	6,153	4,461	24,034
October.....	9,603	4,289	3,368	17,260	12,140	6,354	4,899	23,393
November.....	6,604	3,093	2,387	12,084	7,980	4,144	3,172	15,296
December.....	4,874	2,179	1,620	8,673	5,487	2,641	2,027	10,155
January.....	4,076	1,429	1,133	6,638	4,536	1,766	1,159	7,461
February.....	6,326	2,231	1,605	10,162	6,503	2,584	1,618	10,705
March.....	21,247	5,932	5,886	33,065	26,386	7,865	5,941	39,692
Totals.....	124,349	46,214	38,231	208,794	185,198	71,038	54,848	311,084

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COMPARATIVE STATEMENT.

TOTAL Immigration, for Canada, by ports, for the Fiscal Year 1910-11, compared with that of the Fiscal Year 1909-10.

	FISCAL YEAR, 1909-10.				FISCAL YEAR, 1910-11.			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
North Sydney.	2,863	626	221	3,710	2,032	431	255	2,718
Halifax.	11,899	3,360	2,884	18,143	22,001	6,627	5,030	33,658
St. John.	7,923	2,959	1,914	12,796	13,966	5,039	3,436	22,441
Quebec.	24,788	15,841	11,723	52,352	55,171	30,684	20,766	106,621
Vancouver.	983	95	153	1,231	2,351	171	257	2,779
Victoria.	1,307	170	170	1,647	3,175	283	228	3,686
Via United States ports (New York, Portland, Boston, Philadelphia and Baltimore).	11,164	2,478	1,475	15,117	12,630	3,180	1,920	17,730
From the United States	63,422	20,685	19,691	103,798	73,872	24,623	22,956	121,451
Totals.	124,349	46,214	38,231	208,794	185,198	71,038	54,848	311,084

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SEX, OCCUPATION and Destination of total Immigrant arrivals

	SEX.				TRADE OR								
	Males.	Females.	Children.	Totals.	Farmers or Farm Labourers Class.			General Labourers.			Mechanics.		
					Males.	Females.	Children.	Males.	Females.	Children.	Males.	Females.	Children.
Via ocean ports.....	111,326	46,415	31,892	189,633	46,896	10,661	12,149	27,494	4,452	4,599	17,778	7,183	6,449
From United States.....	73,872	24,623	22,956	121,451	35,758	12,968	14,946	21,218	2,916	2,494	8,628	2,210	1,824
Totals...	185,198	71,038	54,848	311,084	82,654	23,629	27,095	48,712	7,368	7,093	26,406	9,393	8,273

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for Canada, for the Fiscal Year ending March 31, 1911.

OCCUPATION.										DESTINATION.							
Clerks, Traders, &c.			Miners.			Female servants.	Not Classified.			Maritime Provinces.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Yukon.
Males.	Females.	Children.	Males.	Females.	Children.		Males.	Females.	Children.								
8,599	2,299	1,542	3,540	763	1,151	15,187	7,019	5,870	6,002	9,239	29,783	65,572	27,897	15,717	14,923	26,481	21
2,643	954	583	2,504	238	194	1,569	3,121	3,768	2,915	3,997	13,131	14,463	6,756	25,046	29,859	28,145	54
11,242	3,253	2,125	6,044	1,001	1,345	16,756	10,140	9,638	8,917	13,236	42,914	80,035	34,653	40,763	44,782	54,626	75

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COMPARATIVE STATEMENT.

TOTAL Immigration to Canada, by Nationalities, for the Fiscal Year 1910-11, compared with that of the Fiscal Year 1909-10, showing increase or decrease of each Nationality.

	Fiscal Year 1909-10.	Fiscal Year 1910-11.	Increase.	Decrease.
English.....	40,416	84,707	44,291	.....
Welsh.....	728	1,505	777	.....
Scotch.....	14,706	29,924	15,218	.....
Irish.....	3,940	6,877	2,937	.....
Total British.....	59,790	123,013	63,223	.....
African, South.....	97	86	.....	11
Australian.....	203	266	63	.....
Austrian, N. E. S.	4,195	7,891	3,696	.....
Bohemian.....	63	107	44	.....
Bukowinian.....	725	700	.....	25
Croatian.....	74	121	47	.....
Dalmatian.....	11	24	13	.....
Galician.....	3,368	3,553	185	.....
Hungarian, N. E. S.	621	756	135	.....
Magyar.....	55	142	87	.....
Ruthenian.....	568	2,869	2,301	.....
Slovak.....	77	122	45	.....
Belgian.....	910	1,563	653	.....
Bulgarian.....	557	1,068	511	.....
Brazilian.....	.....	13	13	.....
Chinese.....	2,156	5,278	3,122	.....
Dutch.....	741	931	190	.....
French.....	1,727	2,041	314	.....
German, N.E.S.....	1,516	2,530	1,014	.....
Bavarian.....	2	2	.....	.....
Prussian.....	12	1	.....	11
Saxon.....	3	3	.....	3
West Indian.....	146	398	252	.....
Bermudian.....	14	10	.....	4
Jamaican.....	43	47	4	.....
Greek.....	452	777	325	.....
Hebrew, N.E.S.....	343	606	263	.....
" Russian.....	2,745	4,188	1,443	.....
" Polish.....	28	85	57	.....
" Austrian.....	56	248	192	.....
" German.....	10	19	9	.....
Italian.....	7,118	8,359	1,241	.....
Japanese.....	271	437	166	.....
Newfoundland.....	3,372	2,229	.....	1,143
New Zealand.....	82	116	34	.....
Portuguese.....	2	13	11	.....
Polish, N.E.S.....	174	269	95	.....
" Austrian.....	483	1,065	582	.....
" German.....	12	43	31	.....
" Russian.....	738	800	62	.....
Persian.....	5	19	14	.....
Roumanian.....	293	511	218	.....
Russian, N.E.S.....	4,564	6,621	2,057	.....
Finnish.....	1,457	2,132	675	.....
Doukhobors.....	.....	41	41	.....
Spanish.....	42	197	155	.....
Swiss.....	211	270	59	.....
Servian.....	76	50	.....	26
Danish.....	300	535	235	.....
Icelandic.....	95	250	155	.....
Swedish.....	2,017	3,213	1,196
Norwegian.....	1,370	2,169	799
Turkish.....	517	469	48
Armenian.....	75	20	55

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TOTAL Immigration, by Nationalities, &c.—*Concluded.*

	Fiscal Year 1909-10.	Fiscal Year 1910-11.	Increase.	Decrease.
Egyptian.....	2	3	1	
Syrian.....	195	124		71
Arabian.....	14	3		11
U. S. A. citizens (via ocean ports)....	186	203	17	
Negro.....	7	12	5	
Hindoo.....	10	5		5
Total Continental, &c.....	45,206	66,620	21,414	
From the United States.....	103,798	121,451	17,653	
Total Immigration.....	208,794	311,084	102,290	

N.E.S.—Not elsewhere specified.

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ARRIVALS AT OCEAN PORTS.

For the fiscal year 1910-11, there arrived via Canadian and United States ocean ports 290,577 passengers, of whom 20,929 travelled saloon and 269,648 steerage. Of the saloon passengers 16,109 were destined to Canada and 4,820 to the United States. Of the steerage passengers 231,762 were for Canada and 37,886 for the United States. Included in the steerage passengers for Canada were 34,850 returned Canadians and 7,279 tourists, leaving the immigration proper via ocean ports at 189,633 souls which, together with the 121,451 settlers from the United States, brings the total immigration to 311,084, an increase over the preceding fiscal year of 102,290 persons.

The following further statistical information will be of interest: Table I deals with the total arrivals of saloon passengers; Table II with the total arrivals of steerage passengers; Table III with the monthly arrivals of immigrants for Canada, and Tables IV and V give summaries of the information obtained from immigrants for Canada upon arrival.

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TABLE I.

NATIONALITY and Sex of Saloon Passengers arriving at Ocean Ports for the Fiscal Year ending March 31, 1911.

	CANADA.				UNITED STATES.				CANADA AND UNITED STATES.			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
African, South.....	7	8	2	17					7	8	2	17
Australian.....	22	25	6	53	10	8	5	23	32	33	11	76
Austrian, N. E. S.	9	2		11	5	3	2	10	14	5	2	21
Bohemian.....					1	1	2	4	1	1	2	4
Hungarian, N.E.S.....	5			5	2			2	7			7
Magyar.....	3			3					3			3
Belgian.....	9	5	2	16	1			1	10	5	2	17
Brazilian.....	2			2					2			2
Chinese.....	13	5	6	24	4	1	5	10	17	6	11	34
Dutch.....	10	6		16	2	1		3	12	7		19
French.....	110	88	19	217	23	33	2	58	133	121	21	275
German.....	59	23	4	86	22	12	1	35	81	35	5	121
English.....	1,386	707	125	2,218	196	119	10	325	1,582	826	135	2,543
Welsh.....	20	9		29	5	2		7	25	11		36
Scotch.....	362	177	28	567	73	69	2	144	435	246	30	711
Irish.....	126	56	10	192	20	27	2	49	146	83	12	241
West Indian.....	12	2	1	15					12	2	1	15
Bermudian.....	5	6		11					5	6		11
Jamaican.....	1			1					1			1
Greek.....	1			1					1			1
Hebrew, N.E.S.....	2			2	2	1		3	4	1		5
" Russian.....	7	4	4	15					7	4	4	15
Italian.....	33	9	4	46	2	1		3	35	10	4	49
Japanese.....	12	6	6	24	7		1	8	19	6	7	32
Newfoundland.....	225	153	33	411	108	89	1	198	333	242	34	609
New Zealand.....	4	6	3	13	1	1		2	5	7	3	15
Portuguese.....	2	2		4					2	2		4
Polish, N.E.S.....	2			2					2			2
" Russian.....	1			1		1		1	1	1		2
Russian, N.E.S.....	11	3	1	15	2	2		4	13	5	1	19
Finnish.....	1			1	1			1	2			2
Spanish.....	3	2		5					3	2		5
Swiss.....	7	7		14	6	7		13	13	14		27
Servian.....		1		1						1		1
Danish.....	7	5		12	3			3	10	5		15
Icelandic.....		1		1				1	1			1
Swedish.....	4	4	1	9	5	1		6	9	5	1	15
Norwegian.....		2		2	2			2	2	2		4
Turkish.....		2	1	3						2	1	3
Armenian.....					2		1	3	2		1	3
Egyptian.....					1			1	1			1
Syrian.....					2	8	3	11	9	4		13
U.S.A. Citizens.....	76	93	18	187	1,164	1,356	155	2,675	1,240	1,449	173	2,862
Canadian.....	3,919	2,782	415	7,116					3,919	2,782	415	7,116
Tourist.....	2,895	1,652	193	4,740	623	512	79	1,214	3,518	2,164	272	5,954
Totals.....	9,374	5,853	882	16,109	2,302	2,250	268	4,820	11,676	8,103	1,150	20,929

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TABLE II.

NATIONALITY and Sex of Steerage Passengers arriving at Ocean Ports for the Fiscal Year ending March 31, 1911.

	CANADA.				UNITED STATES.				CANADA AND UNITED STATES.			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
African, South....	37	24	25	86	2	3	9	14	39	27	34	100
Australian.....	161	71	34	266	52	47	20	119	213	118	54	385
Austrian, N.E.S....	5,758	1,148	985	7,891	413	220	102	735	6,171	1,368	1,067	8,626
Bohemian.....	40	34	33	107	20	20	17	57	60	54	50	164
Bukowinian.....	548	84	68	700	.....	.....	.....	.....	548	84	68	700
Croatian.....	105	13	3	121	181	20	13	214	286	33	16	335
Dalmatian.....	19	3	2	24	.....	.....	.....	.....	19	3	2	24
Galician.....	2,536	579	438	3,553	99	40	41	180	2,635	619	479	3,733
Hungarian, N.E.S....	383	186	187	756	338	80	59	477	721	266	246	1,233
Magyar.....	81	29	32	142	55	18	19	92	136	47	51	234
Ruthenian.....	1,981	494	394	2,869	26	13	9	48	2,007	507	403	2,917
Slovak.....	85	20	17	122	65	20	5	90	150	40	22	212
Belgian.....	885	353	325	1,563	159	74	65	298	1,044	427	390	1,861
Bulgarian.....	1,046	12	10	1,068	546	5	2	553	1,592	17	12	1,621
Brazilian.....	3	2	8	13	.....	.....	.....	.....	3	2	8	13
Chinese.....	4,859	77	342	5,278	170	6	12	188	5,029	83	354	5,466
Dutch.....	502	212	217	931	126	78	79	283	628	290	296	1,214
French.....	1,136	583	322	2,041	43	25	7	75	1,179	608	329	2,116
German, N.E.S....	1,280	601	649	2,530	321	226	179	726	1,601	827	828	3,256
Bavarian.....	2	.....	.....	2	.....	1	1	2	.....	2	1	4
Prussian.....	1	.....	.....	1	.....	2	.....	2	.....	3	.....	3
English.....	45,115	23,469	16,123	84,707	2,344	1,583	949	4,776	47,359	25,052	17,072	89,483
Welsh.....	927	372	206	1,505	63	32	20	115	990	404	226	1,620
Scotch.....	15,700	9,119	5,105	29,924	712	474	330	1,516	16,412	9,593	5,435	31,440
Irish.....	3,736	2,295	846	6,877	260	180	89	529	3,996	2,475	935	7,406
West Indian.....	239	144	15	398	17	4	2	23	256	148	17	421
Bermudian.....	1	7	2	10	.....	.....	.....	.....	1	7	2	10
Jamaican.....	17	27	3	47	1	2	.....	3	18	29	3	50
Greek.....	728	29	20	777	29	3	1	33	757	32	21	810
Hebrew, N.E.S....	223	173	210	606	44	53	33	130	267	226	243	736
" Russian.....	1,704	1,292	1,192	4,188	621	445	438	1,504	2,325	1,737	1,630	5,692
" Polish.....	39	27	19	85	1	2	.....	3	40	29	19	88
" Austrian.....	98	86	64	248	13	13	9	35	111	99	73	283
" German.....	6	8	5	19	1	.....	.....	1	7	8	5	20
Italian.....	7,274	672	413	8,359	116	13	6	135	7,390	685	419	8,484
Japanese.....	170	217	50	437	6	.....	.....	6	176	217	50	443
Newfoundland.....	1,650	380	199	2,229	908	455	46	1,409	2,558	835	245	3,638
New Zealand.....	64	24	28	116	14	9	12	35	78	33	40	151
Portuguese.....	6	4	3	13	2	.....	.....	2	8	4	3	15
Polish N.E.S....	172	61	36	269	107	26	24	157	279	87	60	426
" Austrian.....	649	224	192	1,065	168	131	73	372	817	355	265	1,437
" German.....	24	10	9	43	6	6	5	17	30	16	14	60
" Russian.....	579	109	112	800	405	179	119	703	984	288	231	1,503
Persian.....	13	2	4	19	21	.....	.....	21	34	2	4	40
Roumanian.....	293	108	110	511	50	35	22	107	343	143	132	618
Russian, N.E.S....	3,966	1,141	1,514	6,621	1,413	522	399	2,334	5,379	1,663	1,913	8,955
Finnish.....	1,400	474	258	2,132	2,493	1,072	535	4,100	3,893	1,546	793	6,232
Doukhobors.....	8	7	26	41	.....	.....	.....	.....	8	7	26	41
Spanish.....	182	9	6	197	3	3	.....	3	185	12	9	206
Swiss.....	174	63	33	270	13	14	3	30	187	77	36	300
Servian.....	36	6	8	50	38	5	1	44	74	11	9	94
Danish.....	367	101	67	535	395	164	127	686	762	265	194	1,221
Icelandic.....	117	74	59	250	7	1	.....	8	124	75	59	258
Swedish.....	2,152	590	471	3,213	1,750	820	477	3,047	3,902	1,410	948	6,260
Norwegian.....	1,419	448	302	2,169	3,049	1,276	411	4,736	4,468	1,724	713	6,905
Turkish.....	438	17	14	469	347	17	17	381	785	34	31	850
Armenian.....	17	2	1	20	261	35	6	302	278	37	7	322
Egyptian.....	1	2	3	1	2	3
Syrian.....	68	34	22	124	154	61	35	250	222	95	57	374

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NATIONALITY and Sex of Steerage Passengers arriving at Ocean Ports for the Fiscal Year ending March 31, 1911—*Concluded.*

	CANADA.				UNITED STATES.				CANADA AND UNITED STATES.			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
Arabian.....	3			3	4			4	7			7
U.S.A. Citizens....	96	56	51	203	1,593	2,254	439	4,286	1,689	2,310	490	4,489
Negro.....	3	9		12					3	9		12
Hindoo.....	4		1	5	1			1	5		1	6
Afghan.....					2			2	2			2
Total immigration.	111,326	46,415	31,892	189,633	19,950	10,785	5,270	36,005	131,276	57,200	37,162	225,638
Returned Canadian	23,222	8,075	3,553	34,850					23,222	8,075	3,553	34,850
Tourist.....	5,014	1,938	327	7,279	1,265	505	111	1,881	6,279	2,443	438	9,160
Totals.....	139,562	56,428	35,772	231,762	21,215	11,290	5,381	37,886	160,777	67,718	41,153	269,648

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TABLE III.

MONTHLY arrivals of Immigrants for Canada, by Nationalities, at Ocean Ports, for the Fiscal Year ending March 31, 1911.

	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals.
African, South.....	11	20	17	2	3	4	4	2	9	1	1	12	86
Australian.....	20	28	65	18	28	23	12	18	10	9	15	20	266
Austrian, N.E.S.....	1,867	3,334	1,001	277	199	232	179	259	39	15	21	468	7,891
Bohemian.....	9	13	6	5	9	29	21	4	7	2	.....	2	107
Bukowinian.....	213	303	41	18	16	17	8	1	24	14	6	39	700
Croatian.....	30	15	20	4	1	14	5	6	4	1	11	10	121
Dalmatian.....	1	5	5	.....	6	.....	2	.....	.....	1	.....	4	24
Galician.....	1,101	515	432	56	134	102	122	58	107	31	58	837	3,553
Hungarian, N.E.S.....	189	105	53	90	46	41	28	112	22	12	11	47	756
Magyar.....	10	14	33	6	2	8	18	2	19	14	10	6	142
Ruthenian.....	227	54	625	502	446	266	297	70	93	52	119	118	2,869
Slovak.....	21	29	13	4	.....	1	15	6	5	1	2	25	122
Belgian.....	251	158	106	147	75	111	124	93	31	29	54	384	1,563
Bulgarian.....	107	12	71	43	52	98	253	197	87	43	32	73	1,068
Brazilian.....	9	.....	.....	.....	.....	1	.....	1	1	1	.....	.....	13
Chinese.....	431	408	731	378	609	679	441	215	375	363	222	426	5,278
Dutch.....	169	177	108	77	52	90	40	24	5	17	26	146	931
French.....	145	339	202	165	210	202	194	125	84	33	89	253	2,041
German, N.E.S.....	256	352	248	222	187	165	407	188	79	92	154	180	2,530
Bavarian.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	2
Prussian.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
English.....	11,548	14,461	9,446	8,235	6,559	6,398	6,107	3,046	1,457	1,108	2,861	13,481	84,707
Welsh.....	140	261	109	154	127	101	98	54	30	31	35	325	1,505
Scotch.....	4,289	5,589	4,723	2,362	2,310	1,693	2,138	1,210	618	226	685	4,081	29,924
Irish.....	882	1,390	794	543	604	582	590	239	147	66	215	825	6,877
West Indian.....	21	76	86	10	35	78	36	24	7	2	13	10	398
Bermudian.....	1	.....	2	3	.....	4	.....	.....	.....	.....	.....	.....	10
Jamaican.....	5	11	5	7	4	4	.....	1	.....	.....	4	6	47
Greek.....	113	55	54	89	87	59	141	110	29	12	10	18	777
Hebrew, N.E.S.....	22	25	47	106	110	55	42	61	35	23	67	13	606
" Russian.....	217	159	531	532	393	563	473	377	369	248	173	153	4,188
" Polish.....	1	.....	1	4	3	2	20	3	17	19	10	5	85
" Austrian.....	9	6	73	30	27	34	24	8	9	11	10	7	248
" German.....	.....	.....	5	7	.....	1	2	4	.....	.....	.....	.....	19
Italian.....	2,162	2,012	719	334	407	410	306	254	257	111	225	1,162	8,359
Japanese.....	33	45	43	52	51	54	34	21	27	16	20	41	437
Newfoundland.....	298	408	190	120	1	193	212	212	246	145	49	155	2,229
New Zealand.....	13	18	28	6	4	5	7	7	9	.....	11	8	116
Portuguese.....	.....	1	.....	.....	.....	3	5	4	.....	.....	.....	.....	13
Polish, N.E.S.....	35	29	27	75	29	14	27	12	4	11	4	2	269
" Austrian.....	108	70	309	76	112	63	88	73	32	41	70	23	1,065
" German.....	7	2	15	5	.....	5	2	1	.....	.....	6	.....	43
" Russian.....	72	31	124	62	121	76	111	21	46	15	85	36	800
Persian.....	1	10	.....	.....	.....	.....	.....	.....	3	4	.....	1	19
Roumanian.....	45	74	58	13	44	30	50	66	33	22	25	51	511
Russian, N.E.S.....	1,271	1,143	1,080	277	355	453	403	404	242	159	111	723	6,621
Finnish.....	206	365	250	184	195	248	171	177	90	52	66	128	2,132
Doukhobors.....	.....	41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	41
Spanish.....	12	39	31	22	13	17	13	11	1	5	1	32	197
Swiss.....	53	36	34	18	24	28	13	14	9	2	4	35	270
Servian.....	5	1	19	.....	2	5	3	9	3	.....	2	1	50
Danish.....	91	85	58	40	49	25	18	13	12	2	18	124	535
Icelandic.....	22	18	36	26	97	21	7	.....	5	1	1	16	250
Swedish.....	587	580	394	365	195	225	157	140	90	43	119	318	3,213
Norwegian.....	400	434	318	165	154	181	80	44	36	25	49	283	2,169
Turkish.....	59	49	101	40	48	19	16	78	33	1	17	8	469
Armenian.....	.....	5	4	8	1	.....	1	.....	.....	.....	.....	1	20
Egyptian.....	1	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	3
Syrian.....	5	6	11	17	19	21	7	16	4	5	12	1	124
Arabian.....	.....	.....	.....	.....	.....	1	.....	1	1	.....	.....	.....	3
U. S. A. citizens.....	18	15	29	14	29	24	20	12	4	9	6	23	203
Negro.....	.....	.....	7	3	2	.....	.....	.....	.....	.....	.....	.....	12
Hindoo.....	.....	4	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	5
Totals.....	27,819	33,395	23,639	16,019	14,287	13,778	13,592	8,089	4,906	3,146	5,816	25,147	189,633

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TABLE IV.

MONTHLY arrivals of Immigrants for Canada, by Occupation and Destination, at Ocean Ports, for the Fiscal Year ending March 31, 1911.

—	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals
Agriculturists.....	13,327	16,352	9,664	5,291	3,627	2,730	2,616	1,665	624	380	1,718	11,712	69,706
General labourers....	5,648	5,039	3,409	2,470	2,696	2,671	2,941	2,449	1,634	1,058	1,137	5,393	36,545
Mechanics.....	4,601	5,725	4,144	3,973	3,663	2,640	2,595	1,348	208	164	213	2,136	31,410
Clerks.....	1,246	1,685	1,497	1,204	1,291	1,358	1,112	614	476	270	475	1,213	12,440
Miners.....	532	745	597	665	597	608	521	370	225	100	170	324	5,454
Female servants.....	1,324	2,382	2,360	1,309	1,297	1,375	1,539	747	483	270	577	1,519	15,187
Not classified.....	1,141	1,467	1,968	1,107	1,117	2,396	2,268	896	1,251	904	1,526	2,850	18,891
Totals.....	27,819	33,395	23,639	16,019	14,287	13,778	13,592	8,089	4,906	3,146	5,816	25,147	189,633
Maritime Provinces.	1,653	1,118	1,037	551	604	596	706	721	567	285	330	1,071	9,239
Quebec.....	3,627	5,916	3,956	2,761	2,637	2,460	2,550	1,516	788	509	841	2,222	29,783
Ontario.....	9,221	11,639	7,608	5,864	5,094	4,971	4,921	2,748	1,582	1,028	1,936	8,960	65,572
Manitoba.....	5,009	5,587	3,904	2,183	1,887	1,568	1,410	827	457	307	639	4,119	27,897
Saskatchewan.....	2,714	2,912	2,127	1,286	886	809	894	545	317	186	470	2,571	15,717
Alberta.....	2,747	2,613	2,015	1,149	984	853	881	562	256	132	397	2,334	14,923
British Columbia...	2,848	3,608	2,992	2,225	2,189	2,521	2,230	1,170	939	694	1,195	3,870	26,481
Yukon.....	.....	2	.....	.....	6	.....	.....	.....	.....	5	8	.....	21
Totals.....	27,819	33,395	23,639	16,019	14,287	13,778	13,592	8,089	4,906	3,146	5,816	25,147	189,633

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TABLE
NATIONALITY, Sex, Occupation and Destination of Immigrant Arrivals,

	SEX.				Farmers and Farm Labourers. Class.			General Labourers.			Mechanics.		
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Males.	Females.	Children.	Males.	Females.	Children.
African South.....	37	24	25	86	21	6	12	32	.....	1	1	6	3
Australian.....	161	71	34	266	49	11	5	32	5	4	29	7	3
Austrian, N.E.S....	5,758	1,148	985	7,891	3,608	689	775	1,847	170	133	76	21	27
Bohemian.....	40	34	33	107	9	9	20	14	1	.....	9	4	2
Bukowinian.....	548	84	68	700	301	37	45	231	12	6	8	8	15
Croatian.....	105	13	3	121	52	1	.....	52	1	.....	1	.....	.....
Dalmatian.....	19	3	2	24	18	2	2	1	.....	.....	.....	.....	.....
Galician.....	2,536	579	438	3,553	903	204	212	1,575	130	185	27	12	11
Hungarian, N.E.S.	383	186	187	756	240	99	121	123	28	32	7	10	13
Magyar.....	81	29	32	142	44	8	15	32	6	5	.....	.....	.....
Ruthenian.....	1,981	494	394	2,869	1,175	211	285	790	57	59	15	5	5
Slovak.....	85	20	17	122	64	.....	.....	15	.....	.....	.....	.....	.....
Belgian.....	885	353	325	1,563	414	126	138	193	44	51	99	45	40
Bulgarian.....	1,046	12	10	1,068	221	1	2	802	8	8	7	.....	.....
Brazilian.....	3	2	8	13	.....	.....	.....	1	1	7	.....	.....	.....
Chinese.....	4,859	77	342	5,278	116	.....	1	1,075	1	3	146	3	3
Dutch.....	502	212	217	931	305	89	129	55	12	13	77	31	28
French.....	1,136	583	322	2,041	588	193	163	142	28	18	110	47	36
German, N.E.S....	1,280	601	649	2,530	545	241	341	192	54	96	196	45	73
Bavarian.....	2	.....	.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....
Prussian.....	1	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....
English.....	45,115	23,469	16,123	84,707	21,467	5,455	5,746	6,391	2,365	2,347	9,657	4,170	3668
Welsh.....	927	372	206	1,505	410	55	74	114	25	22	162	53	35
Scottish.....	15,700	9,119	5,105	29,924	5,963	1,408	1,499	1,699	482	487	4,488	1,529	1467
Irish.....	3,736	2,295	846	6,877	1,812	317	290	492	130	118	550	224	145
West Indian.....	239	141	15	398	14	3	1	73	7	2	90	4	1
Bermudian.....	1	7	2	10	.....	.....	.....	1	.....	.....	.....	.....	.....
Jamaican.....	17	27	3	47	7	1	.....	2	.....	.....	5	2	3
Greek.....	728	29	20	777	127	5	3	547	10	8	27	4	2
Hebrew, N.E.S....	223	173	210	606	20	10	14	38	32	33	90	59	80
" Russian.....	1,704	1,292	1,192	4,188	125	41	56	330	131	177	756	563	500
" Polish.....	39	27	19	85	1	.....	.....	1	1	2	12	4	5
" Austrian.....	98	86	64	248	22	8	16	24	11	17	27	23	10
" German.....	6	8	5	19	.....	.....	.....	2	2	1	1	3	4
Italian.....	7,274	672	413	8,359	2,645	130	111	4,094	231	164	247	39	11
Japanese.....	170	217	50	437	24	14	2	69	19	7	7	.....	.....
Newfoundland.....	1,650	380	199	2,229	9	.....	.....	1,469	96	68	71	18	8
New Zealand.....	64	24	28	116	22	2	5	8	.....	.....	14	2	5
Portuguese.....	6	4	3	13	1	.....	1	2	.....	.....	1	.....	.....
Polish, N.E.S....	172	61	36	269	47	6	5	92	12	7	14	7	7
" Austrian.....	649	224	192	1,065	383	82	128	226	33	30	16	3	4
" German.....	24	10	9	43	9	2	6	2	.....	.....	4	2	3
" Russian.....	579	109	112	800	252	28	47	253	26	34	21	6	10
Persian.....	13	2	4	19	7	1	4	3	.....	.....	2	.....	.....
Romanian.....	293	108	110	511	125	46	82	102	10	4	29	9	5
Russian, N.E.S....	3,965	1,141	1,514	6,621	1,778	615	1,111	1,828	156	187	203	93	81
Finnish.....	1,400	474	258	2,132	353	73	87	779	72	69	69	29	43
Doukhobors.....	8	7	26	41	8	7	26	.....	.....	.....	.....	.....	.....
Spanish.....	182	9	6	197	109	1	1	47	1	.....	7	.....	.....
Swiss.....	174	63	33	270	77	18	15	32	3	3	34	7	6
Servian.....	36	6	8	50	7	.....	.....	18	2	3	1	.....	.....
Danish.....	367	101	67	535	227	37	37	67	8	16	39	7	8
Icelandic.....	117	74	59	250	60	22	38	15	3	1	31	6	9
Swedish.....	2,152	590	471	3,213	1,044	170	246	814	72	110	170	46	50
Norwegian.....	1,419	448	302	2,169	850	159	204	349	41	52	81	14	11
Turkish.....	438	17	14	469	89	2	2	324	5	5	8	2	3
Armenian.....	17	2	1	20	1	.....	.....	12	1	.....	1	1	1
Egyptian.....	1	.....	2	3	.....	.....	.....	.....	.....	.....	1	.....	.....
Syrian.....	68	34	22	124	20	4	1	16	3	2	13	2	1
Arabian.....	3	.....	.....	3	1	.....	.....	.....	.....	.....	1	.....	.....
U.S.A. Citizens....	96	56	51	203	24	12	25	13	3	2	21	4	4
Negro.....	3	9	.....	12	.....	.....	.....	1	1	.....	1	3	.....
Hindoo.....	4	.....	1	5	.....	.....	.....	1	.....	.....	.....	.....	.....
Totals.....	111,326	46,415	31,892	189,633	46,896	10,661	12,149	27,494	4,452	4,599	17,778	7,183	6,449

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V.

for Canada, at Ocean Ports, for the Fiscal Year ending March 31, 1911.

OCCUPATION.										DESTINATION.								
Clerks, Traders, &c.			Miners.			Female Servants.	Not Classified.			Maritime Provinces.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Yukon.	
Males.	Females.	Children.	Males.	Females.	Children.		Males.	Females.	Children.									
4	8	3	1	1	1	2	8	9	5	15	11	13	8	4	4	31	..	
20	12	..	6	..	..	11	25	29	22	4	20	42	8	5	18	151	..
25	1	1	100	14	19	216	21	36	30	198	1,886	1,749	2,373	997	545	143	..	
2	..	..	4	3	5	11	4	6	6	15	9	7	14	24	15	23	..
..	..	1	4	..	..	23	2	4	1	10	227	144	145	61	107	6	..
..	..	..	..	..	..	4	1	6	3	..	28	68	5	5	5	10	..
..	..	..	..	..	..	1	..	..	..	1	4	13	..	6	..	..	..
2	3	8	23	..	..	214	6	16	22	80	737	760	1,243	347	301	85	..
3	..	..	4	2	7	33	6	14	14	12	85	194	121	260	57	27	..
1	..	..	3	..	..	5	1	10	12	14	7	59	20	31	4	7	..
..	..	..	23	1	..	183	8	37	45	39	820	500	829	345	300	36	..
4	1	1	1	..	..	7	1	12	16	..	8	49	1	11	15	38	..
19	7	6	120	47	55	43	40	41	35	211	325	91	465	195	199	77	..	
1	..	..	7	..	..	1	8	2	..	158	319	565	11	4	6	5	..
..	..	..	..	..	..	1	1	..	1	..	..	1	9	..	1	1	..
3,233	33	96	1	..	..	1	288	39	239	20	153	247	33	6	25	4,794	..
29	4	6	3	3	4	44	33	29	37	33	131	267	164	105	203	28	..	
54	13	7	38	10	13	94	204	198	85	187	798	232	326	251	169	73	5	
84	23	15	156	22	40	113	107	103	84	214	263	429	575	565	329	151	4	
..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	1	..	..
2,686	1,340	805	1,404	353	494	7,101	3,510	2,785	3,063	3,091	10,819	35,210	10,978	6,824	6,833	10,947	5	
64	19	20	103	11	7	130	74	79	48	45	201	402	265	112	222	258	..	
1,452	493	311	832	197	379	4,089	1,266	921	962	1,336	3,705	10,170	4,767	1,927	2,730	5,289	..	
475	177	58	67	13	28	1,153	340	281	207	156	1,009	2,837	1,281	384	509	701	..	
14	2	..	2	..	..	115	46	13	11	241	50	97	5	..	1	4	..
..	..	..	..	..	..	5	..	2	2	..	8	..	2	..	..	..	..
1	..	..	..	..	..	20	2	4	..	5	5	31	1	2	2	1	..
15	2	2	2	2	..	3	10	3	5	85	251	379	10	..	..	52	..
26	6	17	1	..	..	15	48	51	66	7	274	209	83	3	18	12	..
143	88	115	2	1	..	90	348	378	344	118	1,482	1,738	693	78	53	26	..	
1	..	..	..	..	..	7	24	15	12	2	18	61	1	..	1	2	..
10	7	6	..	1	..	17	15	19	15	3	112	76	26	27	4	1	..	
..	..	..	..	..	..	2	3	1	..	..	7	7	2	2	..	..	..
22	8	8	140	8	3	115	126	141	116	204	3,151	3,558	155	23	202	1,062	4	
18	4	1	..	..	..	19	52	161	40	..	1	3	..	..	1	432	..
27	9	3	41	1	3	137	33	119	117	1,913	100	104	10	3	13	86	..	
10	4	2	1	..	..	2	9	14	16	1	6	17	5	6	10	71	..
..	..	..	..	..	..	..	2	4	2	3	6	1	..	..	..	3	..
2	1	..	13	5	10	24	4	6	7	15	79	59	71	26	13	6	..	
1	1	1	14	3	3	80	9	22	26	36	180	236	414	100	87	12	..	
..	..	..	3	..	..	6	6	..	..	2	9	17	1	13	1	..	..
5	2	3	30	5	9	32	18	10	9	56	227	317	63	74	32	31	..	
1	..	..	..	..	..	1	..	..	..	..	..	9	..	10	..	..	..
13	1	6	2	..	..	16	22	26	13	28	199	52	33	173	21	5	..
30	17	26	62	8	12	180	65	72	97	303	1,117	1,488	1,246	1,442	734	291	..	
7	..	..	184	27	28	253	8	20	31	25	122	1,517	68	73	115	212	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	41	..	..	..
3	1	1	12	1	..	2	4	3	4	30	90	15	45	..	..	17	..
11	2	1	1	..	..	22	19	11	8	5	98	62	52	16	22	15	..
..	..	..	..	..	..	..	10	4	5	..	19	19	..	11	..	1	..
13	1	2	2	..	..	39	19	9	4	24	84	84	103	67	126	47	..
4	2	1	..	..	..	36	7	5	10	..	2	5	230	7	..	6	..
13	4	4	77	13	21	256	34	29	40	79	271	613	603	469	448	730	..	
23	4	2	37	6	7	191	79	33	26	136	87	275	299	571	398	400	1	
6	1	2	1	..	..	1	10	6	2	20	66	366	5	2	2	8	..
1	..	..	..	..	..	3	..	..	..	4	1	14	..	..	..	1	..
..	..	..	..	..	..	..	..	..	2	..	..	3	..	..	..	..	..
8	5	1	3	1	1	6	8	13	16	27	57	32	1	3	..	4	..	
..	..	..	..	..	..	1	..	..	..	..	2	1	..	..	..	..	..
11	4	..	10	4	2	10	17	19	18	15	40	48	12	6	21	61	..	
..	..	..	..	..	..	5	1	..	..	4	3	5	..	..	..	..	..
1	..	..	..	..	..	2	..	..	1	..	2	2	..	..	..	1	..
8,599	2,299	1,542	3,540	763	1,151	15,187	7,019	5,870	6,002	9,239	29,783	65,572	27,897	15,717	14,923	26,481	21	

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PORT OF NORTH SYDNEY.

For the fiscal year 1910-11, there arrived at the port of North Sydney 10,940 passengers, of whom 3,587 travelled saloon and 7,353 steerage. Of the saloon passengers, 2,477 were destined to Canada and 1,110 to the United States. Of the steerage passengers, 5,363 were for Canada and 1,990 for the United States. Included in the steerage passengers for Canada were 1,659 returned Canadians and 986 tourists, leaving the immigration proper at 2,718 souls, a decrease as compared with the preceding fiscal year at this port of 992 persons.

Table I deals with the total arrivals of saloon passengers; Table II with the total arrivals of steerage passengers; Table III with the monthly arrivals of immigrants for Canada, and Tables IV and V give summaries of the information obtained from immigrants for Canada upon arrival.

TABLE I.

NATIONALITY and Sex of Saloon Passengers arriving at the Port of North Sydney, for the Fiscal Year ending March 31, 1911.

	CANADA.				UNITED STATES.				CANADA AND UNITED STATES.			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
Australian.....	1			1					1			1
Austrian.....	1			1					1			1
French.....	30	36	12	78	13	19	2	34	43	55	14	112
German.....	2	1		3	1			1	3	1		4
English.....	71	17		88	42	19	1	62	113	36	1	150
Welsh.....	1			1	1			1	2			2
Scotch.....	13	2		15	3	1		4	16	3		19
Irish.....	3			3	1	1		2	4	1		5
Bermudian.....	1			1					1			1
Newfoundland.....	216	150	32	398	108	89	1	198	324	239	33	596
Polish, N.E.S.....	2			2					2			2
Russian, N.E.S.....	3			3	1			1	4			4
Finnish.....					1			1	1			1
Swiss.....					4			4	4			4
Danish.....	2			2	1			1	3			3
Icelandic.....					1			1	1			1
Swedish.....	1			1	4			4	5			5
Norwegian.....					2			2	2			2
Egyptian.....					1			1	1			1
Syrian.....		1		1	7	3		10	7	4		11
U. S. A. Citizens.....	10	10	1	21	257	52	4	313	267	62	5	334
Canadian.....	735	251	35	1,021					735	251	35	1,021
Tourist.....	497	299	41	837	270	181	19	470	767	480	60	1,307
Totals.....	1,589	767	121	2,477	718	365	27	1,110	2,307	1,132	148	3,587

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TABLE II.

NATIONALITY and Sex of Steerage Passengers arriving at the Port of North Sydney for the Fiscal Year ending March 31, 1911.

	CANADA.				UNITED STATES.				CANADA AND UNITED STATES.			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
Australian.....	1			1					1			1
Dutch.....	1			1	1			1				2
French.....	78	30	28	136	4	1		5	82	31	28	141
German.....		1		1	1			1	1			2
English.....	107	24	25	156	49	45	4	98	156	69	29	254
Welsh.....					1			1	1			1
Scotch.....	6			6	1			1	7			7
Irish.....	3			3	1			1	4			4
West Indian.....	168	11		179	1			1	169	11		180
Newfoundland.....	1,643	361	196	2,200	908	454	46	1,408	2,551	815	242	3,608
Portuguese.....					2			2	2			2
Polish.....					1			1	1			1
Roumanian.....	1			1	1			1	2			2
Russian.....	1			1	1			1	2			2
Spanish.....	1			1					1			1
Danish.....	1			1					1			1
Swedish.....	4	1	1	6	3	1		4	7	2	1	10
Norwegian.....	2			2	2			2	4			4
Syrian.....	10	3	4	17	46	18	8	72	56	21	12	89
U.S.A. citizens.....	5		1	6	29	4	7	40	34	4	8	46
Total immigration.....	2,032	431	255	2,718	1,052	523	65	1,640	3,084	954	320	4,358
Returned Canadian.....	1,306	301	52	1,659					1,306	301	52	1,659
Tourist.....	795	170	21	986	91	231	28	350	886	401	49	1,336
Totals.....	4,133	902	328	5,363	1,143	754	93	1,990	5,276	1,656	421	7,353

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TABLE III.

MONTHLY Arrivals of Immigrants for Canada, at the Port of North Sydney, for the Fiscal Year ending March 31, 1911.

—	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals.
Australian.....							1						1
Dutch.....									1				1
French.....		13	10	14	11	6	28	27	24	1	1	1	136
German.....					1								1
English.....	2	1	2		146	1	1		2	1			156
Scotch.....	1	2			1					1	1		6
Irish.....		1							1	1			3
West Indian....	6	50	68		14	17	12	12					179
Newfoundland..	292	405	189	118		186	209	212	240	145	49	155	2,200
Roumanian.....			1										1
Russian.....								1					1
Spanish.....			1										1
Danish.....						1							1
Swedish.....	2	1								3			6
Norwegian.....		1								1			2
Syrian.....				3		6	1	1	1	1	4		17
U.S.A. Citizens			1		1		1	1				2	6
Totals...	303	474	272	135	174	217	253	254	269	154	55	158	2,718

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TABLE IV.

MONTHLY Arrivals of Immigrants for Canada, by Occupation and Destination, at the Port of North Sydney for the Fiscal Year ending March 31, 1911.

—	Apr.	May	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals.
Agriculturists.....	1	2	3	3	4	4	5	.....	1	.....	.....	.....	23
General labourers....	207	410	111	45	54	154	136	176	250	107	25	155	1,830
Mechanics.....	14	38	45	13	42	10	23	23	7	10	10	1	236
Clerks.....	21	1	4	5	12	3	7	4	1	1	.....	.....	59
Miners.....	3	9	9	5	21	3	7	3	5	7	3	.....	75
Female servants.....	20	9	31	18	17	16	21	18	5	5	5	.....	165
Not classed.....	37	5	69	46	24	27	54	30	.....	24	12	2	330
Totals..	303	474	272	135	174	217	253	254	269	154	55	158	2,718
Maritime Provinces.	254	431	247	107	135	198	212	199	260	132	37	122	2,334
Quebec.....	17	23	10	13	5	8	20	19	3	7	4	.....	129
Ontario.....	15	11	7	13	11	6	8	32	2	7	1	5	118
Manitoba.....	.....	.....	2	2	6	2	.....	.....	.....	.....	1	4	17
Saskatchewan.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	2
Alberta.....	3	2	3	.....	3	.....	.....	.....	.....	.....	6	.....	17
British Columbia....	13	7	3	14	3	13	4	4	8	5	27	101
Totals.....	303	474	272	135	174	217	253	254	269	154	55	158	2,718

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TABLE

NATIONALITY, Sex, Occupation and Destination of Immigrant Arrivals for Canada,

	SEX.				TRADE OR								
					Farmers and Farm Labourers. Class.			General Labourers.			Mechanics.		
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Males.	Females.	Children.	Males.	Females.	Children.
Australian.....	1			1				1					
Dutch.....	1			1				1					
French.....	78	30	28	136	1			51	7	9	18	3	6
German.....		1		1					1				
English.....	107	24	25	156	5			54		1	24	1	5
Scotch.....	6			6	1			2			1		
Irish.....	3			3							1		
West Indian.....	168	11		179	6			54	2		79		
Newfoundland.....	1,643	361	196	2,200	8			1,468	96	68	69	18	8
Roumanian.....	1			1				1					
Russian.....	1			1				1					
Spanish.....	1			1							1		
Danish.....	1			1				1					
Swedish.....	4	1	1	6				3					
Norwegian.....	2			2									
Syrian.....	10	3	4	17	2			5	1	1	1		
U.S.A. Citizens.....	5		1	6				2			1		
Totals.....	2,032	431	255	2,718	23			1,644	107	79	195	22	19

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V.

at the Port of North Sydney, for the Fiscal Year ending March 31, 1911.

OCCUPATION.										DESTINATION.						
Clerks, Traders, &c.			Miners.			Female Servants.	Not Classified.			Maritime Provinces.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.
Males.	Females.	Children.	Males.	Females.	Children.		Males.	Females.	Children.							
										1						
										1						
			6			16	2	4	13	112	24					
5	1	5	19	1		15		6	14	119	4	10	6		3	14
							3			5	1					
							3			1	1	1				
8			2			8	19	1		179						
27	9	3	41	1	3	126	30	111	114	1,894	94	101	10	2	13	86
										1						
										1						
										1						
										1						
							1	1	1	1	1	3			1	
			1				1			1						1
1							1	2	3	11	4	1	1			
			1				1		1	5		1				
41	10	8	70	2	3	165	59	125	146	2,334	129	118	17	2	17	101

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PORT OF HALIFAX.

For the fiscal year 1910-11, there arrived at the port of Halifax 48,120 passengers, of whom 2,044 travelled saloon and 46,076 steerage. Of the saloon passengers, 1,976 were destined to Canada and 68 to the United States. Of the steerage passengers, 40,352 were for Canada and 5,724 for the United States. Included in the steerage passengers for Canada were 5,699 returned Canadians and 995 tourists, leaving the immigration proper at 33,658 souls, an increase over the preceding fiscal year at this port of 15,515 persons.

Table I deals with the total arrivals of saloon passengers; Table II with the total arrivals of steerage passengers; Table III with the monthly arrivals of immigrants for Canada, and Tables IV and V give summaries of the information obtained from immigrants for Canada upon arrival.

TABLE I.

NATIONALITY and Sex of Saloon Passengers arriving at the Port of Halifax. for the Fiscal Year ending March 31, 1911.

	CANADA.				UNITED STATES.				CANADA AND UNITED STATES.			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
African, South.....		1		1						1		1
Austrian.....		1		1	1	1		2	1	2		3
Bohemian.....					1	1		2	1	1		2
Magyar.....	1			1					1			1
Belgian.....	2			2					2			2
Dutch.....					1			1	1			1
French.....	2	3		5	1			1	3	3		6
German.....	5	2	1	8		1	1	2	5	3	2	10
English.....	227	94	10	331	9	3		12	236	97	10	343
Welsh.....	3			3					3			3
Scotch.....	85	16	5	106	2	1		3	87	17	5	109
Irish.....	39	5	1	45	1	1		2	40	6	1	47
West Indian.....	2			2					2			2
Bermudian.....	1			1					1			1
Italian.....	1			1					1			1
Japanese.....	1			1					1			1
Newfoundland.....	6	2		8					6	2		8
Polish, Russian.....						1		1		1		1
Russian.....						1		1		1		1
Swiss.....	1			1					1			1
Danish.....		1		1	1			1	1	1		2
Armenian.....					1		1	2	1		1	2
U.S.A. Citizens.....	6	3		9	15	7		22	21	10		31
Canadian.....	469	242	38	749					469	242	38	749
Tourist.....	413	255	32	700	3	9		12	416	264	32	712
Totals.....	1,264	625	87	1,976	36	26	6	68	1,300	651	93	2,044

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TABLE II.

NATIONALITY and Sex of Steerage Passengers arriving at the Port of Halifax, for the Fiscal Year ending March 31, 1911.

	CANADA.				UNITED STATES.				CANADA AND UNITED STATES.			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
African, South.....	14	6	9	29					14	6	9	29
Australian.....	13	3	2	18					16	6	3	25
Austrian, N.E.S.....	1,316	245	224	1,785	134	79	49	262	1,450	324	273	2,047
Bohemian.....	3			3	13	11	9	33	16	11	9	36
Bukowinian.....	91	23	17	131					91	23	17	131
Croatian.....	2	1		3	35	4	4	43	37	5	4	46
Dalmatian.....	1			1					1			1
Galician.....	343	81	44	468		1		1	343	82	44	469
Hungarian, N.E.S.....	101	18	15	134	225	47	34	306	326	65	49	440
Magyar.....	2			2	41	13	9	63	43	13	9	65
Ruthenian.....	116	12	9	137	6	7	5	18	122	19	14	155
Slovak.....	1	1		2	43	15	3	61	44	16	3	63
Belgian.....	140	56	44	240	23	3	4	30	163	59	48	270
Bulgarian.....	256	1	5	262	335	1		336	591	2	5	598
Brazilian.....	1			1					1			1
Chinese.....	2			2					2			2
Dutch.....	148	42	54	244	27	5	6	38	175	47	60	282
French.....	51	31	9	91	1			1	52	31	9	92
German, N.E.S.....	228	53	73	354	99	65	47	211	327	118	120	565
English.....	11,539	3,833	2,929	18,301	247	101	75	423	11,786	3,934	3,004	18,724
Welsh.....	223	56	26	305	7	1		8	230	57	26	313
Scotch.....	3,146	1,117	750	5,013	41	15	13	69	3,187	1,132	763	5,082
Irish.....	552	249	89	890	14	4	1	19	566	253	90	909
West Indian.....	13	9	1	23	9	2	1	12	22	11	2	35
Bermudian.....	1			1					1			1
Jamaican.....	5	10	3	18	1	2		3	6	12	3	21
Greek.....	119			119	12	2		14	131	2		133
Hebrew, N.E.S.....	51	26	48	125	11	17	8	36	62	43	56	161
" Russian.....	403	297	265	965	119	90	94	303	522	387	359	1,268
" Polish.....	29	14	10	53	1	2		3	30	16	10	56
" Austrian.....	7	16	7	30	3	7	5	15	10	23	12	45
" German.....	1	1		2					1	1		2
Italian.....	745	26	13	784	39	6		45	784	32	13	829
Newfoundland.....	6	16	3	25		1		1	6	17	3	26
New Zealand.....	5	1	2	8		1	2	3	5	2	4	11
Portuguese.....	1			1					1			1
Polish, N.E.S.....	14	10	10	34	7	3	1	11	21	13	11	45
" Austrian.....	23	11	3	37	65	60	36	161	88	71	39	198
" German.....	1			1	6	5	17	7	6	5	18	5
" Russian.....	51	12	11	74	59	32	30	121	110	44	41	195
Persian.....	6			6	21			21	27			27
Roumanian.....	29	13	9	51	22	13	10	45	51	26	19	96
Russian, N.E.S.....	1,173	162	208	1,543	394	59	48	501	1,567	221	256	2,044
Finnish.....	160	29	20	209	401	152	74	627	561	181	94	836
Spanish.....	21	1		22					21	1		22
Swiss.....	16	5	1	22	2	2	1	5	18	7	2	27
Servian.....					24	3		27	24	3		27
Danish.....	71	11	17	99	42	9	10	61	113	20	27	160
Icelandic.....	19	3	1	23	1			1	20	3	1	24
Swedish.....	354	61	68	513	270	43	23	336	654	104	91	849
Norwegian.....	267	54	26	347	487	111	43	641	754	165	69	988
Turkish.....	60	2		62	281	11	11	303	341	13	11	365
Armenian.....	14	2	1	17	256	33	6	295	270	35	7	312
Syrian.....	5	1	1	7	34	15	6	55	39	16	7	62
Arahanian.....	1			1					1			1
U.S.A. Citizens.....	11	3	3	17	79	29	21	129	90	32	24	146
Negro.....										3		3
Total immigration.....	22,001	6,627	5,030	33,658	3,940	1,086	695	5,721	25,941	7,713	5,725	39,379
Returned Canadian.....	4,250	946	503	5,699					4,250	946	503	5,699
Tourist.....	530	409	56	995	3			3	533	409	56	998
Totals.....	26,781	7,982	5,589	40,352	3,943	1,086	695	5,724	30,724	9,068	6,284	46,076

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TABLE III.

MONTHLY Arrivals of Immigrants for Canada, at the Port of Halifax, for the Fiscal Year ending March 31, 1911.

	April.	May.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals.
African, South.....	4	6	3		1			2	9		1	3	29
Australian.....	4		2					4	3		1	4	18
Austrian, N.E.S.....	1,016	651	8	25	27	8	1		26	3	11	9	1,785
Bohemian.....						1				1		1	3
Bukowinian.....	115	1			1		2	1	1	6	2	2	131
Croatian.....											1	2	3
Dalmatian.....			1										1
Galician.....	150	32	31	6	28	62	48	28	11	25	8	39	468
Hungarian, N.E.S.....	117	1			1	1				4	2	8	134
Magyar.....			1						1				2
Ruthenian.....	6			7		1	7	28		17	12	59	137
Slovak.....										1		1	2
Belgian.....	50	10	14		1	2	5	10	10	11	19	108	240
Bulgarian.....	15			1	12	12	76	56	34	20	17	19	262
Brazilian.....									1				1
Chinese.....				1				1					2
Dutch.....	101	2	3			7	2	16		4	20	89	244
French.....	12	1	2	1		2	2	6	9	10	19	25	91
German, N.E.S.....	100	47	5	10	24	13	4	4	33	43	18	53	354
English.....	5,425	391	379	89	151	82	93	403	742	745	1,513	8,288	18,301
Welsh.....	66	4	3	1	1		6	6	10	19	16	173	305
Scotch.....	1,706	163	102	53	29	59	50	224	350	124	266	1,887	5,015
Irish.....	257	30	1	6	16	2	14	30	51	38	98	347	890
West Indian.....	7	8		3	2				1	1		1	23
Bermudian.....	1												1
Jamaican.....	1	2	3	4		3					4	1	18
Greek.....	21		2		1	16	61	7	8	2	1	119	
Hebrew, N.E.S.....	7		11	12	22	7		13	19	22	11	1	125
" Russian.....	78	27	61	42	24	100	74	125	141	92	111	90	965
" Polish.....	1								17	19	10	5	53
" Austrian.....	1		17	2		1	1		4		1	3	30
" German.....								2					2
Italian.....	210	215	59	8	35	62	67	11	12	4	15	86	784
Newfoundland.....	6	3	1		1	6	2		6				25
New Zealand.....	4								3			1	8
Portuguese.....								1					1
Polish, N.E.S.....		8	4			1		1	4	11	3	2	34
" Austrian.....	1			7		1	5	5	2	4		12	37
" German.....								1					1
" Russian.....	3	4	4		13	2	16	6	18	2		6	74
Persian.....	1								3	1		1	6
Roumanian.....	4	7		1	9		1	9	12	6	1	1	51
Russian, N.E.S.....	440	198	27	23	35	77	123	103	104	32	38	343	1,543
Finnish.....	27	6						25	34	40	28	49	209
Spanish.....	7							1		5		9	22
Swiss.....	10							1	5	2	1	3	22
Danish.....	41		1				1	2	3	2	7	42	99
Icelandic.....									5	1	1	16	23
Swedish.....	247		2					18	44	22	44	136	513
Norwegian.....	136	3	19	3		2	1	3	10	16	26	128	347
Turkish.....	17	15	2		3	1	4	2	10		6	2	62
Armenian.....		4	4	8								1	17
Syrian.....	1				1			2	1	2			7
Arabian.....									1				1
U.S.A. Citizens.....	2				1				1	5	1	7	17
Negro.....				3									3
Totals.....	10,418	1,839	772	316	441	515	621	1,212	1,758	1,368	2,334	12,064	33,658

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TABLE IV.

MONTHLY Arrivals of Immigrants for Canada, by Occupation and Destination, at the Port of Halifax, for the Fiscal Year ending March 31, 1911.

—	April.	May.	June.	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals.
Agriculturists.....	5,596	691	121	39	47	49	69	156	249	167	721	6,360	14,265
General labourers..	1,783	842	103	70	153	192	336	460	522	453	459	1976	7,349
Mechanics.....	1,878	99	80	67	84	86	67	70	111	45	86	1,343	4,016
Clerks.....	296	13	9	11	16	15	16	49	121	87	118	493	1,244
Miners.....	247	152	109	99	106	31	9	139	125	55	98	137	1,357
Female servants...	456	38	76	18	17	37	21	132	200	134	264	668	2,061
Not classed.....	162	4	274	12	18	105	53	206	430	427	588	1,087	3,366
Totals.....	10,418	1,839	772	316	441	515	621	1,212	1,758	1,368	2,334	12,064	33,658
Maritime Provinces	793	388	513	199	234	199	294	368	230	107	190	576	4,091
Quebec.....	1,013	403	70	24	80	116	172	157	246	210	278	853	3,622
Ontario.....	3,577	439	114	74	76	139	106	395	676	566	977	4,947	12,086
Manitoba.....	2,097	290	28	11	26	20	20	101	181	143	210	1,925	5,052
Saskatchewan.....	1,060	182	18	1	10	9	13	56	94	82	193	1,275	2,993
Alberta.....	1,128	103	12	3	6	11	2	78	90	78	122	939	2,572
British Columbia..	750	34	17	4	9	21	14	57	241	182	363	1,549	3,241
Yukon.....											1	1
Totals.....	10,418	1,839	772	316	441	515	621	1,212	1,758	1,368	2,334	12,064	33,658

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TABLE
NATIONALITY, Sex, Occupation and Destination of Immigrant Arrivals for

	SEX.				TRADE OR								
					Farmers and Farm Labourers. Class.			General Labourers.			Mechanics.		
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Males.	Females.	Children.	Males.	Females.	Children.
African, South.....	14	6	9	29	8	3	7	1		1	1	2	1
Austrian.....	13	3	2	18	5			4			1		
Austrian, N.E.S.....	1,316	245	224	1,785	345	104	159	901	87	57	7	1	
Bohemian.....	3			3				1					
Bukowinian.....	91	23	17	131	49	10	16	40	1	1	2		
Croatian.....	2	1		3	2	1							
Dalmatian.....	1			1	1								
Galician.....	343	81	44	468	51	15	19	292	21	25			
Hungarian.....	101	18	15	134	60	9	11	36	2	3	1		
Magyar.....	2			2				1					
Ruthenian.....	116	12	9	137	23	2	2	91	6	7			
Slovak.....	1	1		2				1					
Belgian.....	140	56	44	240	78	15	6	26	1	2	4	3	1
Bulgarian.....	256	1	5	262	7			248	1	5			
Brazilian.....	1			1									
Chinese.....	2			2				1					
Dutch.....	148	42	54	244	102	20	29	14	3	3	19	3	2
French.....	51	31	9	91	17	5		8	4		5	3	3
German, N.E.S.....	228	53	73	354	42	13	9	41	8	17	17	2	
English.....	11,539	3,833	2,929	18,301	6,757	1,391	1,395	1,476	371	421	1,543	351	337
Welsh.....	223	56	26	305	107	8	10	27		1	32	3	2
Scotch.....	3,146	1,117	750	5,013	1,338	239	300	325	48	54	864	108	117
Irish.....	552	249	89	890	303	44	40	64	15	19	49	2	
West Indian.....	13	9	1	23	1			8			3		
Bermudian.....	1			1				1					
Jamaican.....	5	10	3	18	3						2	1	3
Greek.....	119			119	1			114	6		1		
Hebrew, N.E.S.....	51	26	48	125	3	1	4	12	6	13	19	6	12
" Russian.....	403	297	265	965	13	6	5	65	20	49	144	92	79
" Polish.....	29	14	10	53				1	1	2	7		
" Austrian.....	7	16	7	30	1			3	1		1	1	1
" German.....	1	1		2				1					
Italian.....	745	26	13	784	6	1	1	714	15	3	9	1	2
Newfoundland.....	6	16	3	25				1			2		
New Zealand.....	5	1	2	8	2						2		
Portuguese.....	1			1				1					
Polish, N.E.S.....	14	10	10	34	1			7	2	2	1	1	1
" Austrain.....	23	11	3	37	3	4	3	20	2				
" German.....	1			1				1					
" Russian.....	51	12	11	74	5	1	1	38	5	3			
Persian.....	6			6	3			1			1		
Roumanian.....	29	13	9	51	8	2	6	13	2	4			
Russian, N.E.S.....	1,173	162	208	1,543	234	93	152	869	28	46	4		4
Finnish.....	160	29	20	209	24	5	9	111	5	7	9	1	3
Spanish.....	21	1		22	14			2	1				
Swiss.....	16	5	1	22	13	1		1				1	1
Danish.....	71	11	17	99	46	5	11	11	2	6	7		
Icelandic.....	19	3	1	23	9	1	1	2			5		
Swedish.....	384	61	68	513	165	16	32	179	12	21	25	3	6
Norwegian.....	267	54	26	347	121	17	17	68	5	5	12	2	2
Turkish.....	60	2		62	8			49			1	1	
Armenian.....	14	2	1	17				11	1			1	1
Syrian.....	5	1	1	7	2			1			1		
Arabian.....	1			1									
U.S.A. Citizens ..	11	3	3	17	3	2	2	2			1		1
Negro.....		3		3								1	
Totals.....	22,001	6,627	5,030	33,658	9,984	2,034	2,247	5,904	697	768	2,841	596	579

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V.

Canada, at the Port of Halifax, for the Fiscal Year ending March 31, 1911.

OCCUPATION.										DESTINATION.							
Clerks, Traders, &c.			Miners.			Females servants.	Not Classified.			Maritime Provinces.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Yukon.
Males.	Females.	Children.	Males.	Females.	Children.		Males.	Females.	Children.								
1							3	1		10	2	3	2	1		11	
1							1	3	12	1	457	373	588	185	78	5	
5			58	7	6	44	2			2	11	9	57	8	45	1	
						12						2		1			
						41		4		24	181	116	74	51	15	7	
1						5	1	2	1	6	43	20	37	20	8		
1											1	1					
						4				17	66	32	17	3			
						1	4			1					1		
2	2	3	26	17	28	9	4	9	4	98	19	3	83	35	2		
							1			86	33	143					
1										1							
1											1	1					
2											6	100	23	22	66	16	
6	2						7	6	5	19	19	14	21	1	11	6	
2			109	15	28	6	17	9	19	182	21	41	36	28	32	14	
432	146	85	310	73	138	1,072	1,021	429	553	1,942	904	7,565	2,650	1,796	1,441	2,002	1
14	5	3	23	6	2	19	20	15	8	34	20	50	72	31	39	59	
230	33	47	188	58	129	515	201	116	103	756	339	1,579	761	369	465	744	
79	15	3	5	3	8	143	52	27	19	75	92	378	147	78	43	77	
1						9			1	15	2	4				2	
						9				5	1						
2							1			81	4	33				1	
8	1	6				2	9	10	13	4	50	52	12		3	4	
25	16	25	2			22	154	141	107	62	289	511	66	20	15	2	
1						4	20	9	8	2	6	43			1	1	
1	2	1		1		3	1	8	5	3	4	23					
							1				1	1					
2	3	7	13	2		2	1	2		81	506	129		3	5	60	
						9	3	7	3	19	5	1					
	1	2					1				6			1		1	
	1		3	1	4	2	2	3	3	10	4	12	7			1	
						5				2	13	6	16				
1						4	7	2	7	25	29	10	7	3			
1												6					
3						4	3	5	2	10	12	5	2	22			
3	1	1	17	2	4	25	9	7	7	217	383	389	136	178	167	73	
			14	1		17	2		1	12	18	160	4	1	3	11	
			5							9			12			1	
						2	2	1			4	6	8	3	1		
2			1			4	4			7	11	8	29	10	22	12	
						2	3					5	17			1	
1			8	1	3	26	6	3	6	38	54	108	105	57	59	92	
			7			24	59	6	2	106	4	47	57	63	50	20	
1						1	1			10	2	49				1	
			1				2			4		12				1	
							1	1	1	1	1	4		1			
							1					1					
3			1				2			2		8	2			5	
						2				3							
833	228	183	803	195	359	2,061	1,636	836	894	4,091	3,622	12,086	5,052	2,993	2,572	3,241	1

2 GEORGE V., A. 1912

PORT OF ST. JOHN.

For the fiscal year 1910-11, there arrived at the port of St. John 31,394 passengers, of whom 1,366 travelled saloon and 30,028 steerage. Of the saloon passengers, 1,307 were destined to Canada and 59 to the United States. Of the steerage passengers, 26,492 were for Canada and 3,536 for the United States. Included in the steerage passengers for Canada were 3,888 returned Canadians and 163 tourists, leaving the immigration proper at 22,441 souls, an increase as compared with the preceding fiscal year at this port of 9,645 persons.

Table I deals with the total arrivals of saloon passengers; Table II with the total arrivals of steerage passengers; Table III with the monthly arrivals of immigrants for Canada, and Tables IV and V give summaries of the information obtained from immigrants for Canada upon arrival.

TABLE I.

NATIONALITY and Sex of Saloon Passengers arriving at the Port of St. John, for the Fiscal Year ending March 31, 1911.

	CANADA.				UNITED STATES.				CANADA AND UNITED STATES.			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
African, South.....	1	1		2					1	1		2
Austrian.....	1			1	1	1		2	2	1		3
Hungarian, N.E.S.....	1			1					1			1
Magyar.....	1			1					1			1
Belgian.....		1		1						1		1
Brazilian.....	1			1					1			1
Dutch.....	2	2		4					2	2		4
French.....	1	3		4		1		1	1	4		5
German.....	6	4	1	11	1	1		2	7	5	1	13
English.....	153	72	14	239	10	1		11	163	73	14	250
Welsh.....	1			1					1			1
Scotch.....	25	6	1	32					25	6	1	32
Irish.....	14	9	6	29	1	1		2	15	10	6	31
West Indian.....	10	2	1	13					10	2	1	13
Bermudian.....	3	6		9					3	6		9
Jamaican.....	1			1					1			1
Newfoundland.....			1	1							1	1
Portuguese.....	1	1		2					1	1		2
Russian.....	1			1		1		1	1	1		2
Swiss.....	1			1					1			1
Servian.....		1		1						1		1
Turkish.....		1		1						1		1
U. S. A. Citizens.....	7	5		12	13	11		24	20	16		36
Canadian.....	428	242	44	714					428	242	44	714
Tourist.....	138	79	7	224	11	5		16	149	84	7	240
Totals.....	797	435	75	1,307	37	22		59	834	457	75	1,366

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TABLE II.

NATIONALITY and Sex of Steerage Passengers arriving at the Port of St. John, for the Fiscal Year ending March 31, 1911.

	CANADA.				UNITED STATES.				CANADA AND UNITED STATES.			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
African, South.....	6	1	2	9					6	1	2	9
Austrian.....	14	4	2	20					14	4	2	20
Austrian, N.E.S.....	692	198	121	1,011	46	27	12	85	738	225	133	1,096
Bohemian.....		4	7	11	7	3	4	14	7	7	11	25
Bukowinian.....	143	13	14	170					143	13	14	170
Croatian.....	17	3	20	23	5	1		29	40	8	1	49
Galician.....	1,426	262	205	1,893	72	13	30	115	1,498	275	235	2,008
Hungarian, N.E.S.....	68	26	26	120	18	9	8	35	86	35	34	155
Magyar.....	25	1	3	29	3	3	2	8	28	4	5	37
Ruthenian.....	156	49	34	239	1	1		2	157	50	34	241
Slovak.....	6	1		7	3	1		4	9	2		11
Belgian.....	226	79	79	384	38	19	12	69	264	98	91	453
Bulgarian.....	125	2	2	129	35	1		36	160	3	2	165
Brazilian.....	1			1					1			1
Chinese.....	11			11					11			11
Dutch.....	37	10	15	62	18	16	25	59	55	26	40	121
French.....	203	87	58	348	8	7	3	18	211	94	61	366
German, N.E.S.....	123	62	96	281	21	17	28	66	144	79	124	347
Bavarian.....					1	1	1	2		1	1	2
Prussian.....					2			2	3			3
English.....	5,367	2,379	1,552	9,298	139	94	67	300	5,506	2,473	1,619	9,598
Welsh.....	109	34	32	175	8	2		10	117	36	32	185
Scotch.....	2,372	901	528	3,801	56	35	17	108	2,428	936	545	3,909
Irish.....	554	216	114	884	25	4	5	34	579	220	119	918
West Indian.....	22	68	11	101	7	2	1	10	29	70	12	111
Bermudian.....		7	2	9						7	2	9
Jamaican.....	2			2					2			2
Greek.....	16	1		17					16	1		17
Hebrew, N.E.S.....	36	29	29	94	7	9	12	28	43	38	41	122
" Russian.....	211	131	111	453	97	82	71	250	308	213	182	703
" Austrian.....	6	6	11	23	2	1		3	8	7	11	26
" German.....	1			1					1			1
Italian.....	209	18	15	242	6			6	215	18	15	248
New Zealand.....	4	2		6					4	2		6
Portuguese.....		1	2	3						1	2	3
Polish, N.E.S.....	35	1		36					36	1		37
" Austrian.....	104	32	33	169	17	13	8	38	121	45	41	207
" Russian.....	121	32	39	192	99	38	14	151	220	70	53	343
Roumanian.....	69	21	20	110	7	4	1	12	76	25	21	122
Russian, N.E.S.....	560	131	133	824	179	102	67	348	739	233	200	1,172
Finnish.....	160	66	44	270	233	120	45	398	393	186	89	668
Spanish.....	18	1	1	20	1	2	3	6	19	3	4	26
Swiss.....	34	11	7	52	2			2	36	11	7	54
Servian.....	9	2	3	14	1	1	1	3	10	3	4	17
Danish.....	72	23	13	108	83	17	14	114	155	40	27	222
Swedish.....	295	63	45	403	209	64	22	295	504	127	67	698
Norwegian.....	234	50	23	307	635	125	22	782	869	175	45	1,089
Turkish.....	52	3	1	56	14		1	15	66	3	2	71
Armenian.....					3			3				3
Egyptian.....	1			1					1			1
Syrian.....	5	4	2	11		1		1	5		2	12
U.S.A. Citizens.....	7	3	1	11	38	9	15	62	45	12	16	73
Negro.....	1	1		2					1	1		2
Total immigration...	13,966	5,039	3,436	22,441	2,164	848	512	3,524	16,130	5,887	3,948	25,965
Returned Canadian...	2,907	656	325	3,888					2,907	656	325	3,888
Tourist.....	123	35	5	163	5	3	4	12	128	38	9	175
Totals.....	16,996	5,730	3,766	26,492	2,169	851	516	3,536	19,165	6,581	4,282	30,028

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TABLE III.

MONTHLY Arrivals of Immigrants for Canada, by Nationalities, at the Port of St. John, for the Fiscal Year ending March 31, 1911.

—	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals.
African, South.....	4											5	9
Australian.....	3							3		3	2	9	20
Austrian, N. E. S.....	423							132	12	6	2	434	1,011
Bohemian.....	4							7					11
Bukowinian.....	98							23	8	4		37	170
Croatian.....	4							6	3	1	5	1	20
Galician.....	950							9	96	6	50	782	1,893
Hungarian, N. E. S.....	37							30	9	3	4	37	120
Magyar.....								12	13	4			29
Ruthenian.....	12							89	31	105	2	239	
Slovak.....								6			1		7
Belgian.....	129							8	14	11	9	213	384
Bulgarian.....								19	45	18		47	129
Brazilian.....											1		1
Chinese.....			2						5		2	2	11
Dutch.....	10									9	2	41	62
French.....	66							17	30	5	55	175	348
German, N. E. S.....	51							93	23	24	55	35	281
Prussian.....												1	1
English.....	3,191		1	1	2		2	259	585	215	1,030	4,012	9,298
Welsh.....	35							5	15	6	17	97	175
Scotch.....	1,050		5		6			206	211	26	323	1,974	3,801
Irish.....	323			2				16	75	10	68	391	884
West Indian.....	7	11	12	4	4	26	14	6	4		5	8	101
Bermudian.....			2	3		4							9
Jamaican.....								1				1	2
Greek.....	1							14	1		1		17
Hebrew, N. E. S.....	13							8	9		56	8	94
" Russian.....	46							80	166	91	33	37	453
" Austrian.....								3	2	9	9		23
" German.....								1					1
Italian.....	43							11	23	13	36	116	242
New Zealand.....	2							1				3	6
Portuguese.....							3						3
Polish, N. E. S.....	35										1		36
" Austrian.....	49								25	31	64		169
" Russian.....	44								25	12	84		192
Roumanian.....	23							16	17	15	6	28	110
Russian, N. E. S.....	269							83	83	94	19	276	824
Finnish.....	50							57	55	10	30	68	270
Spanish.....	1								1			18	20
Swiss.....	18							4			1	29	52
Servian.....	1							7	3		2	1	14
Danish.....	24							3	6		8	67	108
Swedish.....	165							15	37	11	41	134	403
Norwegian.....	133							5	22	2	15	130	307
Turkish.....	1							27	16		6	6	56
Egyptian.....	1												1
Syrian.....	3										8		11
U. S. A. citizens.....	5									1	1	4	11
Negro.....					2								2
Totals.....	7,330	11	22	10	14	30	19	1,151	1,749	684	2,165	9,256	22,441

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TABLE IV.

MONTHLY Arrivals of Immigrants for Canada, by Occupation and Destination, at the Port of St. John, for the Fiscal Year ending March 31, 1911.

	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals.
Agriculturists.....	3,851		4		8	1		281	284	137	676	4,005	9,247
General labourers.....	1,632				2	4		1	523	519	264	434	2,312
Mechanics.....	1,027	1	2	2			2	2	110	27	38	49	1,916
Clerks.....	195		1				2		29	98	21	127	812
Miners.....	79								47	87	23	58	414
Female servants.....	339	6	8	6	1	10	12	84	175	53	202	693	1,589
Not classified.....	207	4	7		1	15	4	77	559	148	619	1,131	2,772
Totals.....	7,330	11	22	10	14	30	19	1,151	1,749	684	2,165	9,256	22,441
Maritime Provinces .	408	4	8	6	11	15	11	70	73	33	101	350	1,090
Quebec.....	605		8		1	2	3	197	315	141	343	788	2,403
Ontario.....	2,242	3	2	4	1	13	5	431	572	207	616	2,759	6,855
Manitoba.....	1,575	4						111	223	108	302	1,814	4,137
Saskatchewan.....	978							110	180	83	209	1,088	2,648
Alberta.....	825		4		1			100	142	41	185	1,180	2,478
British Columbia.....	697							132	244	71	409	1,277	2,830
Totals.....	7,330	11	22	10	14	30	19	1,151	1,749	684	2,165	9,256	22,441

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TABLE

NATIONALITY, Sex, Occupation and Destination of Immigrant Arrivals for

	SEX.				TRADE OR								
					Farmers and Farm Labourers. Class.			General Labourers.			Mechanics.		
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Males.	Females.	Children.	Males.	Females.	Children.
African, South.....	6	1	2	9	6		1						
Australian.....	14	4	2	20	6	1					2		
Austrian, N.E.S.....	692	198	121	1,011	465	151	103	208	26	17	6	2	
Bohemian.....		4	7	11									
Bukowinian.....	143	13	14	170	77	3	4	63	3	4		1	5
Croatian.....	17	3		20	6			10	1				
Galician.....	1,426	262	205	1,893	370	69	70	1,036	72	111	7	5	8
Hungarian, N.E.S.....	68	26	26	120	22	11	9	41	8	12	1	3	5
Magyar.....	25	1	3	29	14	1	3	7					
Ruthenian.....	156	49	34	239	72	7	15	78	11	13	1		
Slovak.....	6	1		7	6								
Belgian.....	236	79	79	384	138	46	54	66	16	15	13	4	7
Bulgarian.....	125	2	2	129	46			74	2	2			
Brazilian.....	1			1									
Chinese.....	11			11				4					
Dutch.....	37	10	15	62	21	6	14	11	1	1	2	1	
French.....	203	87	58	348	149	43	44	15	9	5	5	1	
German, N.E.S.....	123	62	96	281	54	24	49	40	13	21	12	6	11
Prussian.....	1			1									
English.....	5,367	2,379	1,552	9,298	2,810	626	641	942	303	325	699	210	175
Welsh.....	109	34	32	175	53	8	19	19	4		7	1	
Scotch.....	2,372	901	528	3,801	978	210	251	374	70	46	315	58	38
Irish.....	554	216	114	884	260	64	40	107	23	18	62	14	7
West Indian.....	22	68	11	101	4	3		5	3	2	4	1	1
Bermudian.....		7	2	9									
Jamaican.....	2			2							1		
Greek.....	16	1		17	8	1		5			1		
Hebrew, N.E.S.....	36	29	20	94	1	2		8	6	5	7	3	3
Russian.....	211	131	111	453	18	5	9	89	25	35	47	36	15
Austrian.....	6	6	11	23		1	5	2	3	4			
German.....	1			1				1					
Italian.....	209	18	15	242	68	4	4	120	4	4	4	1	
New Zealand.....	4	2		6	3								
Portuguese.....		1	2	3									
Polish, N.E.S.....	35	1		36	2			31			2		
Austrian.....	104	32	33	169	76	10	16	25	6	10			
Russian.....	121	32	39	192	76	10	16	39	10	21			
Roumanian.....	69	21	20	110	25	1	7	35	5	1	2	1	
Russian, N.E.S.....	560	131	133	824	170	39	61	354	41	42	12	4	12
Finnish.....	160	66	44	270	19	4	4	122	14	17	4	4	7
Spanish.....	18	1	1	20	16								
Swiss.....	34	11	7	52	21	9	6	7		1	2		
Servian.....	9	2	3	14	2			7	2	3			
Danish.....	72	23	13	108	42	8	3	24	3	8	2		
Swedish.....	295	63	45	401	119	9	13	143	10	15	18	3	4
Norwegian.....	234	50	23	307	134	15	14	82	4	4	14	2	
Turkish.....	52	3	1	56	18			34	2	1			
Egyptian.....	1			1							1		
Syrian.....	5	4	2	11							1		
U. S. A. Citizens.....	7	3	1	11	4	1					1	1	
Negro.....	1	1		2									
Totals.....	13,966	5,039	3,436	22,441	6,380	1,392	1,475	4,228	700	763	1,255	363	298

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V.

Canada, at the Port of St. John, for the Fiscal Year ending March 31, 1911.

OCCUPATION.										DESTINATION.						
Clerks, Traders, &c.			Miners.			Female Servants.	Not Classified.			Maritime Provinces.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.
Males.	Females.	Children.	Males.	Females.	Children.		Males.	Females.	Children.							
3				1	1		3	3	2	1					2	6
4			4			12	5	7	1	62	157	228	285	206	63	10
				1	5	1		2	2	10	1					10
			1			4	2	2	1	7	44	37	39	18	22	3
							1	1			5	14		1		
2	2	4	8			106	3	8	12	44	324	396	716	189	185	39
2			1			4	1			2	9	30	3	72	3	1
			3				1			9		15		5		
			4			21	1	10	6	3	33	31	102	43	17	10
						1					5	1				
			3	3	1	6	6	4	2	13	35	11	133	115	61	16
			1				4			8	58	56	3	1	1	2
							1									1
5						2	2			4	4	3				
1						2	2			13		7	24	5	10	3
	1		4	1	1	7	30	25	8	39	89	28	63	80	37	12
6	2			1	2	8	11	8	13	13	12	54	67	71	44	20
277	80	45	112	29	47	732	527	399	319	372	592	3,295	1,358	957	1,177	1,547
4			16	1		13	10	7	13	3	3	44	29	11	49	36
182	33	29	88	6	4	379	435	145	160	200	227	1,193	671	318	433	759
54	13	7	8			63	63	39	42	42	70	303	162	98	101	108
2	1					55	7	5	8	40	19	34	5		1	2
						5		2	2	7		2				
							1				1	1				
							2			1	2	13	1			
4	1	2				1	16	16	19		43	29	21		1	
7	3	11				7	50	55	41	9	241	148	50	3	2	
2							2	2	2		7	5		11		
														1		
3			7			4	7	5	7	32	122	48	7	5	12	16
							1	2		1		2			1	2
								1	2	3						
						1					4	11	18	2		1
			3	2	2	10	3	8	7	5	25	43	63	9	23	1
						3	3			7	19	81	14	55	12	4
1	1	6				3	6	10	6	16	53	10	5	19	3	4
1	1		5			30	18	16	18	48	124	261	154	137	56	44
1			13	1	4	36	1	7	12	3	8	205	4	13	8	29
1							1	1	1	18	1					1
2						1	2	1		4	5	19	16	4	4	
												6		8		
2			1			10	1	2	2	14	9	16	22	22	13	12
1	1		10	2	4	33	4	5	9	13	33	86	63	79	55	74
			2			25	2	4	5	12	5	32	36	89	76	57
								1		5	5	46				
												1				
2							2	4	2	2	5	4				
			1				1	1	1	2	2	2		1	4	
							1			1	1					
569	139	104	295	48	71	1,589	1,239	808	725	1,090	2,403	6,855	4,137	2,648	2,478	2,830

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PORT OF QUEBEC.

For the fiscal year 1910-11, there arrived at the port of Quebec, 162,240 passengers, of whom 10,527 travelled saloon and 151,713 steerage.

Of the saloon passengers, 7,581 were destined to Canada and 2,946 to the United States. Of the steerage passengers, 127,153 were for Canada and 24,560 for the United States. Included in the steerage passengers for Canada were 17,772 returned Canadians and 2,760 tourists, leaving the immigration proper at 106,621 souls, an increase as compared with the preceding fiscal year of 54,269 persons.

Table I deals with the total arrivals of saloon passengers; Table II with the total arrivals of steerage passengers; Table III with the monthly arrivals of immigrants for Canada, and Tables IV and V give summaries of the information obtained from immigrants for Canada upon arrival.

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TABLE I.

NATIONALITY and Sex of Saloon Passengers arriving at the Port of Quebec, for the Fiscal Year ending March 31, 1911.

	CANADA.				UNITED STATES.				CANADA AND UNITED STATES.			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
African, South.....	5	6	1	12					5	6	1	12
Australian.....	8	7	3	18		1		1	8	8	3	19
Austrian.....	4			4	3	1		4	5	1		6
Hungarian.....	3			3	2			2	5			5
Belgian.....	2	2	1	5	1			1	3	2	1	6
Chinese.....	1			1		1		1	1			1
Dutch.....	4	3		7	1	1		2	5	4		9
French.....	21	11		32	9	12		21	30	23		53
German.....	14	2		16	13	8		21	27	10		37
English.....	737	441	82	1,260	124	93	7	224	861	534	89	1,484
Welsh.....	13	9		22	4	2		6	17	11		28
Scotch.....	200	126	17	343	64	65	1	130	264	191	18	473
Irish.....	60	35	2	97	16	23	1	40	76	58	3	137
Hebrew, N.E.S.....					2	1		3	2	1		3
“ Russian.....	1			1					1			1
Italian.....	3	3		6	2	1		3	5	4		9
Japanese.....	3			3					3			3
Newfoundland.....	3			3					3			3
New Zealand.....	2	2		4					2	2		4
Portuguese.....	1	1		2					1	1		2
Polish Russian.....	1			1				1	1			1
Russian.....	2			2	1			1	3			3
Swiss.....	1	7		8	1	7		8	2	14		16
Danish.....	3	1		4	1			1	4	1		5
Swedish.....	2	3	1	6	1	1		2	3	4	1	8
Turkish.....		1	1	2						1	1	2
Armenian.....					1			1	1			1
Syrian.....	1			1	1			1	2			2
U. S. A. Citizens.....	32	60	8	100	774	1,176	119	2,069	806	1,236	127	2,169
Canadian.....	1,819	1,768	239	3,826	20	19	3	42	1,839	1,787	242	3,868
Tourist.....	1,111	629	52	1,792	154	190	19	363	1,265	819	71	2,155
Totals.....	4,057	3,117	407	7,581	1,195	1,601	150	2,946	5,252	4,718	557	10,527

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TABLE II.

NATIONALITY and Sex of Steerage Passengers arriving at the Port of Quebec, for the Fiscal Year ending March 31, 1911.

	CANADA.				UNITED STATES.				CANADA AND UNITED STATES.			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
Afghan.....					2			2	2			2
African, South..	9	16	13	38		1	1	2		9	17	40
Australian.....	37	19	9	65		1		1	37	20	9	66
Austrian, N.E.S....	3,159	627	586	4,372	218	114	40	372	3,377	741	626	4,744
Bohemian.....	26	24	26	76		6	4	10	26	30	30	86
Bukowinian.....	314	48	37	399					314	48	37	399
Croatian.....	27	4		31	123	11	8	142	150	15	8	173
Dalmatian.....	2	2	2	6					2	2	2	6
Galician.....	748	234	188	1,170	27	26	11	64	775	260	199	1,234
Hungarian, N.E.S....	115	89	96	300	95	24	17	136	210	113	113	436
Magyar.....	29	11	14	54	11	2	8	21	40	13	22	75
Ruthenian.....	1,419	385	301	2,105	19	5	4	28	1,438	390	305	2,133
Slovak.....	18	1	1	20	19	4	2	25	37	5	3	45
Belgian.....	333	166	158	657	98	52	49	199	431	218	207	856
Bulgarian.....	494	7	3	504	176	3	2	181	670	10	5	685
Brazilian.....		1		1						1		1
Chinese.....	11			11					11			11
Dutch.....	249	126	117	492	79	57	48	184	328	183	165	676
French.....	620	343	192	1,155	29	17	4	50	649	360	196	1,205
German, N.E.S.....	619	314	340	1,273	182	137	102	421	801	451	442	1,694
Bavarian.....	2			2					2			2
English.....	25,849	16,296	11,210	53,355	1,774	1,324	798	3,896	27,623	17,620	12,008	57,251
Welsh.....	509	254	137	900	44	29	20	93	553	283	157	993
Scotch.....	9,633	6,776	3,763	20,172	593	419	297	1,309	10,226	7,195	4,060	21,481
Irish.....	2,335	1,696	611	4,642	199	165	80	444	2,534	1,861	691	5,086
West Indian.....	2	1		3					2	1		3
Jamaican.....	2			2					2			2
Greek.....	253	9	3	265	16	1	1	18	269	10	4	283
Hebrew, N.E.S....	120	108	126	354	26	27	13	66	146	135	139	420
" Russian.....	930	711	679	2,320	405	272	273	950	1,335	983	952	3,270
" Polish.....	10	13	9	32					10	13	9	32
" Austrian.....	71	55	42	168	8	5	4	17	79	60	46	185
" German.....	3	7	5	15	1			1	4	7	5	16
Italian.....	1,003	57	31	1,091	69	7	6	82	1,072	64	37	1,173
Japanese.....	1			1	1			1	2			2
Newfoundland.....	1	3		4					1	3		4
New Zealand.....	13	3	5	21	4			4	17	3	5	25
Portuguese.....	2			2					2			2
Polish, N.E.S....	123	50	26	199	97	23	23	143	220	73	49	342
" Austrian.....	416	159	141	716	86	58	29	173	502	217	170	889
" German.....	9	9	8	26					9	9	8	26
" Russian.....	354	52	54	460	247	109	75	431	601	161	129	891
Persian.....	4	2	4	10					4	2	4	10
Roumanian.....	144	55	62	261	20	18	11	49	164	73	73	310
Russian, N.E.S....	1,552	657	867	3,076	810	356	280	1,446	2,362	1,013	1,147	4,522
Finnish.....	990	366	188	1,544	1,859	800	416	3,075	2,849	1,166	604	4,619
Doukhobors.....	8	7	26	41					8	7	26	41
Spanish.....	92	3	1	96	2	1		3	94	4	1	99
Swiss.....	84	33	8	125	8	11	2	21	92	44	10	146
Servian.....	18	4	5	27	12	1		13	30	5	5	40
Danish.....	169	49	31	249	267	138	103	508	436	187	134	757
Icelandic.....	97	71	58	226	5			6	102	72	58	232
Swedish.....	1,151	395	316	1,862	1,259	712	432	2,403	2,410	1,107	748	4,265
Norwegian.....	794	306	223	1,323	1,922	1,040	346	3,308	2,716	1,346	569	4,631
Turkish.....	108	1	3	112	51	6	5	62	159	7	8	174
Armenian.....	3			3	2	2		4	5	2		7
Egyptian.....			2	2							2	2

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NATIONALITY and Sex of Steerage Passengers arriving at the Port of Quebec, for the Fiscal Year ending March 31, 1911.—*Concluded.*

	CANADA.				UNITED STATES.				CANADA AND UNITED STATES.			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
Syrian	38	21	10	69	74	27	21	122	112	48	31	191
Arabian.....	2			2	4			4	6			6
U. S. A. Citizens..	47	38	29	114	1,255	2,174	378	3,807	1,302	2,212	407	3,921
Hindoo.....					1			1	1			1
Total Immigration.	55,171	30,684	20,766	106,621	12,199	8,186	3,913	24,298	67,370	38,870	24,679	130,919
Returned Canadian	9,493	5,798	2,481	17,772					9,493	5,798	2,481	17,772
Tourist.....	1,520	1,150	90	2,760	81	165	16	262	1,601	1,315	106	3,022
Totals.....	66,184	37,632	23,337	127,153	12,280	8,351	3,929	24,560	78,464	45,983	27,206	151,713

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TABLEE III.

MONTHLY Arrivals of Immigrants for Canada, by Nationalities, at the Port of Quebec,
for the Fiscal Year ending March 31, 1911.

	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Totals.
African, South.....		14	14	2	1	3	4		38
Australian.....	1	15	15	4	18	5	4	3	65
Austrian, N.E.S.....	7	2,659	963	185	140	164	174	80	4,372
Bohemian.....		10	1	5	9	28	19	4	76
Bukowinian.....		302	41	18	15	17	6		399
Croatian.....		4	4	4	1	14	4		31
Dalmatian.....					6				6
Galician.....	1	483	401	50	106	40	74	15	1,170
Hungarian, N.E.S.....		102	51	59	27	10	16	35	300
Magyar.....			24	6	2	8	12	2	54
Ruthenian.....			608	495	446	265	249	42	2,105
Slovak.....			7	4		1	8		20
Belgian.....		92	80	144	67	96	111	67	657
Bulgarian.....		3*	66	39	37	74	177	108	504
Brazilian.....						1			1
Chinese.....			1	3	2	1	3	1	11
Dutch.....	18	148	93	71	46	75	35	6	492
French.....	1	314	167	135	154	160	162	62	1,155
German, N.E.S.....		231	198	176	122	108	362	76	1,273
Bavarian.....		1			1				2
English.....	1,921	13,780	8,962	8,019	6,145	6,256	5,964	2,308	53,355
Welsh.....	26	241	159	143	123	100	91	17	900
Scotch.....	1,313	5,334	4,570	2,267	2,242	1,616	2,070	760	20,172
Irish.....	186	1,300	775	516	567	556	555	187	4,642
West Indian.....						3			3
Jamaican.....		1			1				2
Greek.....		27	17	60	35	36	80	10	265
Hebrew, N.E.S.....		15	33	94	83	48	42	39	354
" Russian.....	1	125	438	468	334	432	379	143	2,320
" Polish.....			1	4	3	2	20	2	32
" Austrian.....		4	53	28	27	33	23		168
" German.....			5	7		1	2		15
Italian.....		485	176	146	99	72	57	56	1,091
Japanese.....			1						1
Newfoundland.....				2		1	1		4
New Zealand.....		2	6	4	2	2	3	2	21
Portuguese.....						1			1
Polish, N.E.S.....		21	23	75	29	13	27	11	199
" Austrian.....		42	299	69	110	62	77	57	716
" German.....			14	5		5	2		26
" Russian.....		5	115	62	105	70	90	13	460
Persian.....		10							10
Roumanian.....	6	46	55	12	33	29	49	31	261
Russian, N.E.S.....	21	821	970	223	305	329	255	152	3,076
Finnish.....	115	310	238	184	191	248	170	88	1,544
Doukhobors.....			41						41
Spanish.....		36	5	22	6	12	13	2	96
Swiss.....		24	28	17	18	20	12	6	125
Servian.....			15		2	5	3	2	27
Danish.....	6	74	45	33	48	22	16	5	249
Icelandic.....	21	18	36	26	97	21	7		226
Swedish.....	89	468	346	351	173	213	141	81	1,862
Norwegian.....	66	387	292	146	145	177	76	34	1,323
Turkish.....		10	23	4	15	13	10	37	112
Armenian.....		1			1		1		3
Egyptian.....								2	2
Syrian.....		6	5	14	16	13	6	9	69
Arabian.....						1		1	2
U. S. A. Citizens.....	10	12	23	11	16	18	15	9	114
Totals.....	3,809	27,983	20,503	14,412	12,170	11,501	11,677	4,566	106,621

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TABLE IV.

MONTHLY Arrivals of Immigrants for Canada, by Occupation and Destination, at the Port of Quebec, for the Fiscal Year ending March 31, 1911.

	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Totals.
Agriculturists.....	1,330	14,379	8,992	5,008	3,343	2,398	2,345	1,013	38,808
General labourers.....	415	3,072	2,567	2,076	2,037	2,084	2,203	1,049	15,503
Mechanics.....	1,066	5,316	3,834	3,777	3,449	2,435	2,435	1,095	23,407
Clerks.....	323	1,204	1,115	858	843	790	820	313	6,266
Miners.....	127	555	458	541	452	568	437	170	3,308
Female servants.....	261	2,240	2,196	1,242	1,228	1,276	1,440	480	10,363
Not classified.....	287	1,217	1,341	910	818	1,950	1,997	446	8,966
Totals.....	3,809	27,983	20,503	14,412	12,170	11,501	11,677	4,566	106,621
Maritime Provinces....	23	269	246	218	199	175	172	70	1,372
Quebec.....	530	5,034	3,600	2,607	2,319	2,145	2,251	954	19,440
Ontario.....	1,414	9,948	6,906	5,436	4,595	4,431	4,553	1,667	38,950
Manitoba.....	597	5,042	3,797	2,119	1,823	1,503	1,351	563	16,795
Saskatchewan.....	289	2,608	2,046	1,265	850	772	843	331	9,004
Alberta.....	433	2,313	1,869	1,101	928	799	834	337	8,614
British Columbia.....	523	2,767	2,039	1,666	1,450	1,676	1,673	644	12,438
Yukon.....		2			6				8
Totals.....	3,809	27,983	20,503	14,412	12,170	11,501	11,677	4,566	106,621

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TABLE
NATIONALITY, Sex, Occupation and Destination of Immigrant Arrivals for

	SEX.				TRADE OR								
					Farmers and Farm Labourers. Class.			General Labourers.			Mechanics.		
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Males.	Females.	Children.	Males.	Females.	Children.
African, South.....	9	16	13	38	5	3	4					4	2
Australian.....	37	19	9	65	10	5	5		1	1	13	1	
Austrian, N.E.S.....	3,159	627	586	4,372	2,377	404	483	687	50	53	42	13	18
Bohemian.....	26	24	26	76	7	9	20	13	1		3	2	2
Bukowinian.....	314	48	37	399	175	24	25	128	8	1	6	7	10
Croatian.....	27	4		31	9			18					
Dalmatian.....	2	2	2	6	2	1	2						
Galician.....	748	224	188	1,170	474	120	123	236	37	48	20	7	3
Hungarian, N.E.S.....	115	89	96	300	91	61	77	20	6	5	2	6	7
Magyar.....	29	11	14	54	21	6	12	8	2				
Ruthenian.....	1,419	385	301	2,105	832	181	241	553	38	34	10	5	5
Slovak.....	18	1	1	20	11			2					
Belgian.....	333	166	158	657	108	52	71	57	20	27	59	30	24
Bulgarian.....	494	7	3	504	88	1	2	395	5	1	4		
Brazilian.....		1		1									
Chinese.....	11			11	1			5					
Dutch.....	249	126	117	492	149	54	70	23	8	9	45	23	24
French.....	620	343	192	1,155	381	135	109	41	3		74	39	24
German, N.E.S.....	619	314	340	1,273	327	148	231	80	29	47	119	23	29
Bavarian.....	2			2	1								
English.....	25,849	16,296	11,210	53,355	11,039	3,255	3,534	3,647	1,567	1,576	6,990	3,509	3102
Welsh.....	509	254	137	900	217	36	40	58	20	21	104	44	31
Scotch.....	9,633	6,776	3,763	20,172	3,559	944	936	913	352	374	3,152	1,345	1308
Irish.....	2,335	1,696	611	4,642	1,181	190	196	254	88	75	401	200	137
West Indian.....	2	1		3				2					
Jamaican.....	2			2	2								
Greek.....	253	9	3	265	33	2	1	197	2		10	1	
Hebrew, N.E.S.....	120	108	126	354	15	5	9	18	19	15	60	48	65
" Russian.....	930	711	679	2,320	73	22	26	163	75	87	490	378	371
" Polish.....	10	13	9	32	1				6		5	4	9
" Austrian.....	71	55	42	168	18	5	10	18	6	12	25	21	5
" German.....	3	7	5	15				1	1	1	1	3	4
Italian.....	1,003	57	31	1,091	179	6	5	747	26	20	43	4	2
Japanese.....	1			1									
Newfoundland.....	1	3		4	1								
New Zealand.....	13	3	5	21	7						4		
Portuguese.....	2			2							1		
Polish, N.E.S.....	123	50	26	199	44	6	5	54	10	5	11	6	6
" Austrian.....	416	159	141	716	236	63	100	151	25	20	10	2	4
" German.....	9	9	8	26	6	2	6				1	1	2
" Russian.....	354	52	54	460	140	14	25	162	11	10	16	6	8
Persian.....	4	2	4	10	1	1	4	2			1		
Roumanian.....	144	55	62	261	66	32	52	41	1		21	8	5
Russian, N.E.S.....	1,552	657	867	3,076	934	382	668	437	70	71	112	67	53
Finnish.....	990	366	188	1,544	292	63	69	479	52	45	53	24	33
Doukhobors.....	8	7	26	41	8	7	26						
Spanish.....	92	3	1	96	49	1	1	30			4		
Swiss.....	84	33	8	125	24	2	2	17	2		24	4	
Servian.....	18	4	5	27				8			1		
Danish.....	169	49	31	249	112	21	20	21	2	2	20	4	6
Icelandic.....	97	71	58	226	51	21	37	13	3	1	25	6	9
Swedish.....	1,151	395	316	1,862	667	137	186	311	39	62	100	36	36
Norwegian.....	794	306	223	1,323	554	122	156	146	26	33	46	10	9
Turkish.....	108	1	3	112	35			64			3	1	3
Armenian.....	3			3	1			1					
Egyptian.....			2	2									
Syrian.....	38	21	10	69	15	3	1	8	1		7	2	1
Arabian.....	2			2	1						1		
U.S.A. Citizens.....	47	38	29	114	11	4	18	5	3	2	13	2	1
Totals.....	55,171	30,684	20,766	106,621	24,641	6,559	7,608	10,236	2,609	2,658	12,153	5,896	5358

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V.

Canada, at the Port of Quebec, for the Fiscal Year ending March 31, 1911.

OCCUPATION.										DESTINATION.									
Clerks, Traders, &c.			Miners.			Female Servants.	Not Classified.			Maritime Provinces.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Yukon.		
Males.	Females.	Children.	Males.	Females.	Children.		Males.	Females.	Children.										
2		3				1	2	8	4	4	8	9	5	3	2	7			
8	1		1			8	3	3	3		14	22	14	3	2	10			
9	2	1	37	6	13	134	7	18	18	34	1,041	936	1,366	557	339	99			
			2	1		7	1	4	4		6	4	10	22	11	23			
2		1	3			7		2		3	172	98	49	35	40	2			
						3	1				10	16		2		3			
						1									6				
	1	4	15			65	3	4	10	12	226	238	451	105	100	38			
			1	2	7	14	1			4	30	55	36	140	24	11			
						2		1	2		6	18	12	18					
			17	1		142	7	18	21	18	589	353	631	259	238	17			
4	1	1	1								2	2	1		6	9			
11	5	3	87	25	21	20	11	14	12	100	221	38	121	33	102	42			
1			5			1	1			61	196	231	8	2	5	1			
						1									1				
							4				8	2	1						
19	4	6	2	2		27	11	8	8	6	118	107	102	64	88	7			
27	8	7	15	2	5	60	82	96	47	15	514	144	197	148	85	47	5		
35	11	6	37	1		69	21	33	27	17	187	180	320	371	168	30			
							1						1						
1,758	1,667	651	913	243	300	4,988	1,502	1,667	2,047	437	8,716	23,046	6,608	3,789	3,949	6,758	2		
41	13	17	61	3	4	91	28	47	24	6	168	260	148	57	114	147			
976	419	234	535	133	246	3,003	498	580	665	365	2,899	7,096	3,239	1,210	1,772	3,591			
277	132	46	45	10	20	883	177	184	137	35	771	1,958	916	204	331	424			
						1				2			1						
															1	1			
8	2	2	1	1			4			3	79	176				7			
10	4	9	1			12	16	20	28	3	170	115	46	3	9	8			
94	67	77		1		49	110	119	118	47	860	848	469	51	32	13			
						3	4	6	4		12	18	1			1			
5	3	4				12	5	8	7		88	36	25	15	4				
						2	1	1			6	6	2	1					
5	3		14	2		6	15	10	4	17	779	212	19	7	15	42			
							1				1								
1	1					2		1			1	2		1					
						1	1	1	5		6	4	5	4	1	1			
						1					1	1							
2			10	4	6	21	2	3	4	5	71	36	46	24	13	4			
1	1	1	14	3	3	54	4	11	13	18	113	145	300	86	47	7			
			2			6				2	9	4		10	1				
4	2	3	26	3	7	11	6	5	1	23	151	190	35	16	19	26			
						1								10					
7			2			8	7	6	5	1	104	29	22	86	18	1			
16	15	25	28	4	6	88	25	31	44	32	474	511	686	879	376	118			
5			157	25	24	190	4	12	17	10	93	1,078	58	57	89	159			
														41					
			7	1			2	1			63	4	25			4			
6	2	1	1			16	12	7		1	63	24	18	8	7	4			
							9	4	5		18	6		3					
7	1	2				18	9	3		1	52	42	39	30	67	18			
4	2	1				34	4	5	10		2		212	7		5			
6	2	4	56	9	14	162	11	10	14	15	145	337	364	273	272	456			
14	4	2	25	5	7	125	9	14	16	12	74	177	182	356	247	274	1		
1			1				4				2	23	83	1		1			
							1				1								
									2										
2	4	1	3	1	1	5	3	5	6	5	45	17		2					
											2								
5	4		6	3	2	9	7	13	6	3	32	30	5	5	16	23			
3,373	1,781	1,112	2,131	491	686	10,363	2,637	2,985	3,344	1,372	19,440	38,950	16,795	9,004	8,614	12,438	6		

2 GEORGE V., A. 1912

PORT OF VANCOUVER.

For the fiscal year 1910-11, there arrived at the port of Vancouver 9,885 passengers, of whom 1,779 travelled saloon and 8,106 steerage. Of the saloon passengers, 1,326 were destined to Canada and 453 to the United States. Of the steerage passengers 6,573 were for Canada and 1,533 for the United States. Included in the steerage passengers for Canada were 1,601 returned Canadians and 2,193 tourists, leaving the immigration proper at 2,779 souls, an increase as compared with the preceding fiscal year at this port of 1,548 persons.

Table I deals with the total arrivals of saloon passengers; Table II with the total arrivals of steerage passengers; Table III with the monthly arrivals of immigrants for Canada, and Tables IV and V give summaries of the information obtained from immigrants for Canada upon arrival.

TABLE I.

NATIONALITY and Sex of Saloon Passengers arriving at the Port of Vancouver, for the Fiscal Year ending March 31, 1911.

	CANADA.				UNITED STATES.				CANADA AND UNITED STATES.			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
Australian.....	7	11	2	20	9	6	3	18	16	17	5	38
Austrian.....	1			1					1			1
Belgian.....	1			1					1			1
Chinese.....	12	5	6	23	4	1	5	10	16	6	11	33
Dutch.....	1			1					1			1
French.....	4			4					4			4
German.....	3			3	5	2		7	8	2		10
English.....	62	35	11	108	7	2		9	69	37	11	117
Scotch.....	10	10	4	24	3	1	1	5	13	11	5	29
Irish.....	2	2		4	1	1	1	3	3	3	1	7
Japanese.....	5	1	4	10	7		1	8	12	1	5	18
New Zealand.....	2	3	3	8	1	1		2	3	4	3	10
Russian.....	1			1					1			1
Swiss.....					1			1	1			1
Norwegian.....		1		1						1		1
U. S. A. Citizens.....	7	6	3	16	58	60	17	135	65	66	20	115
Canadian.....	64	71	19	154					64	71	19	154
Tourist.....	560	336	51	947	125	92	38	255	685	428	89	1,202
Totals.....	742	481	103	1,326	221	166	66	453	963	647	169	1,779

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TABLE II.

NATIONALITY and Sex of Steerage Passengers arriving at the Port of Vancouver, for the Fiscal Year ending March 31, 1911.

	CANADA.				UNITED STATES.				CANADA AND UNITED STATES.			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
African, South...					1			1	1			1
Australian.....	82	37	17	136	12	12	4	28	94	49	21	164
Austrian.....	6			6	2			2	8			8
Chinese.....	1,907	34	183	2,124	127	6	10	143	2,034	40	193	2,267
Dutch.....		1		1	1			1	1	1		2
French.....	1			1					1			1
German.....	14	6		20	7	2		9	21	8		29
English.....	129	50	24	203	10	9		19	139	59	24	222
Welsh.....	4			4					4			4
Scotch.....	65	12	6	83	7	2	3	12	72	14	9	95
Irish.....	42	5	4	51	8	5	3	16	50	10	7	67
Greek.....	6			6					6			6
Hebrew, N. E. S.	1			1					1			1
" Russian..					1			1		1		1
Italian.....	4			4	1			1	5			5
Japanese.....	7	8	3	18	3			3	10	8	3	21
New Zealand.....	37	15	20	72	5	1	2	8	42	16	22	80
Portuguese.....	1			1					1			1
Polish.....					1			1	1			1
Russian, N. E. S.	7	2		9	16			16	23	2		25
Finnish.....	1			1					1			1
Spanish.....	11			11					11			11
Swiss.....					1	1		2	1	1		2
Danish.....	2			2	2			2	4			4
Swedish.....	4			4	3			3	7			7
Norwegian.....	5			5					5			5
Turkish.....					1			1	1			1
U. S. A. Citizens..	15	1		16	128	11	7	146	143	12	7	162
Total immigration..	2,351	171	257	2,779	336	50	29	415	2,687	221	286	3,194
Returned Canadian..	1,499	61	41	1,601					1,499	61	41	1,601
Tourist.....	1,925	127	141	2,193	999	69	50	1,118	2,924	196	191	3,311
Totals....	5,775	359	439	6,573	1,335	119	79	1,533	7,110	478	518	8,106

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TABLE III.

MONTHLY Arrivals of Immigrants for Canada, by Nationalities, at the Port of Vancouver, for the Fiscal Year ending March 31, 1911.

	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals.
Australian.....	9	9	44	13	8	14	5	6	6	4	12	6	136
Austrian.....				2			1			3			6
Chinese.....	122	155	374	146	288	231	225	42	150	111	120	160	2,124
Dutch.....										1			1
French.....										1			1
German.....	1		18									1	20
English.....	11	26	19	44	16	6	12	15	6	10	14	24	203
Welsh.....			1	1		1				1			4
Scotch.....	7	9	11	22	6	3	3		1	4	4	13	83
Irish.....	14	4	2	9	1	13	1	1	3		3		51
Greek.....				2	2						2		6
Hebrew.....			1										1
Italian.....											4		4
Japanese.....		1	4			12			1				18
New Zealand..	6	15	19	2	1	1	4	3	6		11	4	72
Portuguese.....		1											1
Russian, N.E. S	1		2							6			9
Finnish.....	1												1
Spanish.....			3					8					11
Danish.....			1			1							2
Swedish.....	1	1		1	1								4
Norwegian.		2	2		1								5
U.S.A. citizens		2	4	2	2	2				3	1		16
Totals.....	173	225	505	244	326	284	251	75	173	144	171	208	2,779

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TABLE IV.

MONTHLY Arrivals of Immigrants for Canada, by Occupation and Destination, at the Port of Vancouver, for the Fiscal Year ending March 31, 1911.

	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals.
Agriculturists.....	14	24	68	21	13	6	1	2	2	3	.....	27	181
General labourers.....	43	9	172	45	129	50	102	10	74	24	29	99	786
Mechanics.....	14	42	25	21	8	7	8	9	.....	.....	20	2	156
Clerks.....	70	124	140	108	104	147	89	43	70	67	102	64	1,128
Miners.....	2	1	7	10	2	.....	2	2	2	4	.....	1	33
Female servants.....	.....	.....	2	1	.....	.....	1	1	7	.....	.....	2	14
Not classified.....	30	25	91	38	70	74	48	8	18	46	20	13	481
Totals.....	173	225	505	244	326	284	251	75	173	144	171	208	2,779
Maritime Provinces.....	.....	.....	3	1	6	1	.....	3	.....	2	.....	.....	16
Quebec.....	7	11	11	7	16	19	17	1	13	7	8	17	134
Ontario.....	17	9	24	19	28	16	29	1	25	22	2	39	231
Manitoba.....	.....	6	3	8	4	6	3	2	.....	1	.....	2	35
Saskatchewan.....	.....	1	1	1	6	.....	.....	.....	.....	1	1	2	13
Alberta.....	6	13	17	8	3	3	1	1	.....	1	14	1	68
British Columbia.....	143	185	446	200	263	239	201	67	135	110	146	147	2,282
Totals.....	173	225	505	244	326	284	251	75	173	144	171	208	2,779

2 GEORGE V., A. 1912

TABLE

NATIONALITY, Sex, Occupation and Destination of Immigrant Arrivals for

	TRADE OR												
	SEX.				Farmers and Farm Labourers. Class.			General Labourers			Mechanics.		
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Males.	Females.	Children.	Males.	Females.	Children.
Australian.	82	37	17	136	25	4		21	4	3	12	5	3
Austrian.	6			6				3					
Chinese.	1,907	34	183	2,124	35			645	1	1	26	1	
Dutch.		1		1									
French.	1			1									
German.	14	6		20	7	1		1			3		
English.	129	50	24	203	35	11	10	24	2	4	32	10	6
Welsh.	4			4							2		
Scotch.	65	12	6	83	16	1	1	16	2	4	18	2	
Irish.	42	5	4	51	11	2	3	17			6	1	1
Greek.	6			6				4			2		
Hebrew.	1			1							1		
Italian.	4			4				4					
Japanese.	7	8	3	18				3					
New Zealand.	37	15	20	72	9	2	5	8			6	2	5
Portugese.	1			1				1					
Russian, N.E.S.	7	2		9				1			2	1	
Finnish.	1			1							1		
Spanish.	11			11				11					
Danish.	2			2	1						1		
Swedish.	4			4				2					
Norwegian.	5			5	1			2			2		
U.S.A. Citizens.	15	1		16	1			2			4	1	
Totals.	2,351	171	257	2,779	141	21	19	765	9	12	118	23	15

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V.

Canada, at the Port of Vancouver, for the Fiscal Year ending March 31, 1911.

OCCUPATION.										DESTINATION.							
Clerks, Traders, &c.			Miners.			Female Servants.	Not Classified.			Maritime Provinces.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	
Males.	Females.	Children.	Males.	Females.	Children.		Males.	Females.	Children.								
7	7		3			2	14	15	11		1	7	4		15	109	
1,033	9	24				1	168	22	158	16	131	206	24	5	17	1,725	
							1	1				1				1	
							1	3							2	18	
18	7		8	1		6	12	13	4		2	5	3	7	9	177	
							2									4	
1			9			2	5	5	1			6	2		9	66	
4			3				1	2				2	2		4	43	
																6	
												1					
1	2						3	6	3							4	
9	2		1			1	4	8	10			3			1	18	
																60	
			3	1			1									1	
																9	
																1	
																11	
1			1												1	1	
																4	
																5	
3			1				4								1	15	
1,077	27	24	31	2		14	219	75	187	16	134	231	35	13	68	2,282	

2 GEORGE V., A. 1912

PORT OF VICTORIA.

For the fiscal year 1910-11, there arrived at the port of Victoria 7,340 passengers, of whom 445 travelled saloon and 6,895 steerage. Of the saloon passengers, 261 were destined to Canada and 184 to the United States. Of the steerage passengers, 6,360 were for Canada and 535 for the United States. Included in the steerage passengers for Canada were 2,634 returned Canadians and 40 tourists, leaving the immigration proper at 3,686 souls, an increase over the preceding fiscal year at this port of 2,039 persons.

Table I deals with the total arrivals of saloon passengers; Table II with the total arrivals of steerage passengers; Table III with the monthly arrivals of immigrants for Canada, and Tables IV and V give summaries of the information obtained from immigrants for Canada upon arrival.

TABLE I.

NATIONALITY and Sex of Saloon Passengers arriving at the Port of Victoria, for the Fiscal Year ending March 31, 1911.

	CANADA.				UNITED STATES.				CANADA AND UNITED STATES.			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
African, South.....			1	1							1	1
Australian.....	6	7	1	14	1	1	3	4	7	8	3	18
French.....						1		1		1		1
German.....	2	2		4	2			2	4	2		6
English.....	44	23	7	73	4	1	2	7	48	23	9	80
Scotch.....	5	3		7	1	1		2	6	3		9
Irish.....	2	3	1	5					2	2	1	5
Japanese.....	3	5	2	10					3	5	2	10
Newfoundland.....		1		1						1		1
New Zealand.....		1		1						1		1
Spanish.....	2	2		4					2	2		4
U.S.A. Citizens.....	5	4	5	14	47	50	15	112	52	54	20	126
Canadian.....	28	13	4	45					28	13	4	45
Tourist.....	52	25	5	82	40	16		56	92	41	5	138
Totals.....	149	86	26	261	95	70	19	184	244	156	45	445

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TABLE II.

NATIONALITY and Sex of Steerage Passengers arriving at the Port of Victoria, for the Fiscal Year ending March 31, 1911.

	CANADA.				UNITED STATES.				CANADA AND UNITED STATES			
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Totals.
African, South.....	2		1	3	1	2	8	11	3	2	9	14
Australian.....	6	5	4	15	37	31	15	83	43	36	19	98
Austrian.....	2			2	13		1	14	15		1	16
Chinese.....	2,928	43	159	3,130	43		2	45	2,971	43	161	3,175
French.....					1			1	1			1
German.....	2	1	3	6	11	5	2	18	13	6	5	24
English.....	31	11	4	46	25	10	5	40	56	21	9	86
Welsh.....	1			1	1			1	2			2
Scotch.....	20	6		26	14	3		17	34	9		43
Irish.....	6	2	4	12	13	2		15	19	4	4	27
Jamaican.....	1			1					1			1
Greek.....	2			2	1			1	3			3
Italian.....	1			1	1			1	2			2
Japanese.....	162	209	47	418	2			2	164	209	47	420
New Zealand.....	2	3	1	6	5	7	8	20	7	10	9	26
Portuguese.....	1		1	2					1		1	2
Russian, N.E.S.....	2	2	2	6	13	5	4	22	15	7	6	28
Finnish.....	1			1					1			1
Servian.....					1			1	1			1
Danish.....					1			1	1			1
Icelandic.....					1			1	1			1
Swedish.....					6			6	6			6
Norwegian.....	2			2	3			3	5			5
U.S.A. Citizens.....	2	1	2	5	60	25	11	96	62	26	13	101
Hindoo.....	1			1					1			1
Total immigration.....	3,175	283	228	3,686	253	90	56	399	3,428	373	284	4,085
Returned Canadian.....	2,564	41	29	2,634					2,564	41	29	2,634
Tourist.....	23	11	6	40	86	37	13	136	109	48	19	176
Totals.....	5,762	335	263	6,360	339	127	69	535	6,101	462	332	6,895

2 GEORGE V., A. 1912

TABLE III.

MONTHLY Arrivals of Immigrants for Canada, at the Port of Victoria, for the Fiscal Year ending March 31, 1911.

	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals.
African, South.....	1											2	3
Australian.....	2	1	4	1		1	2	2		2			15
Austrian.....			1		1								2
Chinese.....	309	253	354	228	319	447	213	171	220	252	100	264	3,130
German.....							2			4			6
English.....	1	10	5	11	1	1	1		3	2	1	10	46
Welsh.....				1									1
Scotch.....		5	4		2	1	1	1		2	1	9	26
Irish.....		2	2							5		3	12
Jamaican.....				1									1
Greek.....	2												2
Italian.....				1									1
Japanese.....	33	44	38	52	51	42	34	21	26	16	20	41	418
New Zealand.....	1		3			1		1					6
Portuguese.....							2						2
Russian, N.E.S.....									6				6
Finnish.....												1	1
Norwegian.....				1			1						2
U. S. A. Citizens.....			1				3					1	5
Hindoo.....				1									1
Totals.....	349	315	412	297	374	493	259	196	255	283	122	331	3,686

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TABLE IV.

MONTHLY Arrivals of Immigrants for Canada, by Occupation and Destination, at the Port of Victoria, for the Fiscal Year ending March 31, 1911.

	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals.
Agriculturists.....	48	7	9	13	6	2	5	1	5	8	5	32	141
General labourers.....	22	22	126	46	41	39	40	16	47	94	14	23	530
Mechanics.....	48	11	14	4	3	4	6	1	.....	.....	2	.....	93
Clerks.....	190	249	191	193	209	378	155	160	158	122	88	226	2,379
Miners.....	1	1	1	3	.....	1	.....	.....	.....	5	.....	2	14
Female servants.....	.....	.....	8	.....	2	1	8	1	.....	.....	.....	3	23
Not classed.....	40	25	63	38	53	68	45	17	45	54	13	45	506
Totals.....	349	315	412	297	374	493	259	196	255	283	122	331	3,686
Maritime Provinces.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Quebec.....	.....	2	.....	.....	.....	.....	1	4	2	2	.....	.....	11
Ontario.....	2	2	.....	2	.....	2	2	5	22	.....	.....	2	41
Manitoba.....	.....	.....	.....	1	.....	1	.....	.....	4	3	.....	.....	9
Saskatchewan.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1
Alberta.....	.....	.....	1	.....	4	1	.....	.....	.....	1	.....	2	9
British Columbia.....	347	311	411	294	370	489	256	190	244	249	122	327	3,610
Yukon.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	5
Totals.....	349	315	412	297	374	493	259	196	255	283	122	331	3,686

2 GEORGE V., A. 1912

TABLE

NATIONALITY, Sex, Occupation and Destination of Immigrant Arrivals for

	SEX.				TRADE OR								
					Farmers and Farm Labourers. Class.			General Labourers.			Mechanics.		
	Males.	Females.	Children.	Totals.	Males.	Females.	Children.	Males.	Females.	Children.	Males.	Females.	Children.
African, South.....	2		1	3									
Australian.....	6	5	4	15	1	1		1			1	1	
Austrian.....	2			2									
Chinese.....	2,928	43	159	3,130	80		1	420		2	62		
German.....	2	1	3	6							1	1	
English.....	31	11	4	46	6			3			9	1	3
Welsh.....	1			1									
Scotch.....	20	6		26	1	1		3			4		
Irish.....	6	2	4	12	1		4	1					
Jamaican.....	1			1				1					
Greek.....	2			2							1		
Italian.....	1			1	1								
Japanese.....	162	209	47	418	24	14	2	66	19	7	7		
New Zealand.....	2	3	1	6	1								
Portuguese.....	1		1	2	1		1						
Russian, N.E.S....	2	2	2	6				1	1	2			
Finnish.....	1			1	1								
Norwegian.....	2			2	1			1					
U. S. A. Citizens..	2	1	2	5				1					2
Hindoo.....	1			1				1					
Totals.....	3,175	283	228	3,686	117	16	8	499	20	11	85	3	5

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V.

Canada, at the Port of Victoria, for the Fiscal Year ending March 31, 1911.

OCCUPATION.							DESTINATION.										
Clerks, Traders, &c.			Miners.			Female Servants.	Not Classified.			Maritime Provinces.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Yukon.
Males.	Females.	Children.	Males.	Females.	Children.		Males.	Females.	Children.								
1			1			1	2	1		1						3	
							1	2	4							14	
							1									2	
2,251	26	75	1				114	17	81		9	35	8	1	8	3,069	
																2	4
1			5	1	3	3	7	6	1		1	1				43	1
																1	
1			1				10	5								26	
1	1						3	1								12	
																1	
1											2						
													1				
17	2	1				19	48	155	37			3			1	414	
							1	3	1							6	
																2	
							1	1								6	
																1	
							1									2	
								1								5	
																1	
2,274	29	76	10	1	3	23	190	191	125	11	41	9	1	9	3,610	5

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UNITED STATES PORTS.

For the fiscal year 1910-11, there arrived in Canada, via ports in the United States, 20,636 passengers, of whom 1,181 travelled saloon and 19,455 steerage. Included in the steerage passengers were 1,585 returned Canadians and 140 tourists, leaving the immigration proper at 17,730 souls, an increase as compared with the preceding fiscal year of 2,613 persons.

Table I deals with the total arrivals of saloon passengers; Table II with the total arrivals of steerage passengers; Table III with the monthly arrivals of immigrants, and Tables IV and V give summaries of the information obtained from immigrants upon arrival.

TABLE I.

NATIONALITY and Sex of Saloon Passengers for Canada, arriving at Ports in the United States for the Fiscal Year ending March 31, 1911.

	CANADA.			
	Males.	Females.	Children.	Totals.
African, South.....	1			1
Austrian.....	2	1		3
Hungarian, N.E.S.	1			1
Magyar.....	1			1
Belgian.....	4	2	1	7
Brazilian.....	1			1
Dutch.....	3	1		4
French.....	52	35	7	94
German.....	27	12	2	41
English.....	92	26	1	119
Welsh.....	2			2
Scotch.....	24	15	1	40
Irish.....	6	3		9
Greek.....	1			1
Hebrew, N.E.S.....	2			2
" Russian.....	6	4	4	14
Italian.....	29	6	4	39
Russian, N.E.S.....	4	3	1	8
Finnish.....	1			1
Spanish.....	1			1
Swiss.....	4			4
Danish.....	2	3		5
Swedish.....	1	1		2
Norwegian.....		1		1
U.S.A. Citizens.....	9	5		15
Tourist.....	124	29	5	158
Canadian.....	376	195	36	607
Totals.....	776	342	63	1,181

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TABLE II.

NATIONALITY and Sex of Steerage Passengers for Canada, via Ports in the United States, for the Fiscal Year ending March 31, 1911.

	CANADA.			
	Males.	Females.	Children.	Totals.
African, South.....	6	1	.....	7
Australian.....	8	3	.....	11
Austrian, N.E.S.....	583	78	54	715
Bohemian.....	11	6	.....	17
Croatian.....	59	5	3	67
Dalmatian.....	16	1	.....	17
Galician.....	19	2	1	22
Hungarian, N.E.S.....	99	53	50	202
Magyar.....	25	17	15	57
Ruthenian.....	290	48	50	388
Slovak.....	60	17	16	93
Belgian.....	186	52	44	282
Bulgarian.....	171	2	.....	173
Brazilian.....	1	1	8	10
Dutch.....	67	33	31	131
French.....	183	92	35	310
German.....	294	164	137	595
English.....	2,093	876	379	3,348
Welsh.....	81	28	11	120
Scotch.....	458	307	58	823
Irish.....	244	127	24	395
West Indian.....	34	55	3	92
Jamaican.....	7	17	.....	24
Greek.....	332	19	17	368
Hebrew, N.E.S.....	15	10	7	32
" Russian.....	160	153	137	450
" Austrian.....	14	9	4	27
" German.....	1	.....	.....	1
Italian.....	5,312	571	354	6,237
New Zealand.....	3	.....	.....	3
Portuguese.....	1	3	.....	4
Polish, Austrian.....	106	22	15	143
" German.....	14	1	1	16
" Russian.....	53	13	8	74
Persian.....	3	.....	.....	3
Romanian.....	50	19	19	88
Russian, N.E.S.....	671	187	304	1,162
Finnish.....	88	13	6	107
Spanish.....	39	4	4	47
Swiss.....	40	14	17	71
Servian.....	9	.....	.....	9
Danish.....	52	18	6	76
Icelandic.....	1	.....	.....	1
Swedish.....	314	70	41	425
Norwegian.....	115	38	30	183
Turkish.....	218	11	10	239
Syrian.....	10	5	5	20
U.S.A. Citizens.....	9	10	15	34
Hindoo.....	3	.....	1	4
Negro.....	2	5	.....	7
Total immigration.....	12,630	3,180	1,920	17,730
Returned Canadian.....	1,199	264	122	1,585
Tourist.....	98	36	6	140
Totals.....	13,927	3,480	2,048	19,455

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TABLE III.

MONTHLY Arrivals of Immigrants for Canada by Nationalities, via Ports in the United States, for the Fiscal Year ending March 31, 1911.

—	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals.
African, South.....	2				1	1				1		2	7
Australian.....	1	3				3						1	11
Austrian, N.E.S....	419	24	29	65	31	60	3	47	1	3	8	25	715
Bohemian.....	5	3	5				2			1		1	17
Croatian.....	26	11	16				1		1		5	7	67
Dalmatian.....	1	5	4				2			1		4	17
Galician.....								6				16	22
Hungarian, N.E.S.	35	2	2	31	18	30	12	47	13	5	5	2	202
Magyar.....	10	14	8				6		6	1	6	6	57
Ruthenian.....	209	54	17				41		4	4	2	57	388
Slovak.....	21	29	6				7		5		1	24	93
Slovenian.....	72	56	12	3	7	13	8	8	7	7	26	63	282
Belgian.....	92	9	5	3	3	12		14	8	5	15	7	173
Bulgarian.....	9									1			10
Brazilian.....	40	27	12	6	6	8	3	2	4	3	4	16	131
Dutch.....	66	11	23	15	43	34	2	13	21	16	14	52	310
French.....	104	74	27	36	40	44	39	15	23	21	81	91	595
German.....	997	253	78	71	98	52	34	61	119	135	303	1,147	3,348
English.....	13	16	6	8	3		1	6	5	5	2	55	120
Welsh.....	212	76	31	20	24	14	14	19	56	69	90	108	823
Scottish.....	103	53	14	10	20	11	20	5	17	12	46	84	395
Irish.....	1	7	6	3	15	32	10	6	2	1	8	1	92
West Indian.....	4	8	2	2	4							4	24
Jamaican.....	89	28	35	27	49	23	45	25	21	4	5	17	368
Greek.....	2	10	2		5			1	7	1		4	32
Hebrew, N.E.S....	92	7	32	22	35	31	20	29	62	65	29	26	450
" Russian.....	8	2	3					5	3	2		4	27
" Austrian.....													1
" German.....								1					1
Italian.....	1,909	1,312	484	179	273	276	182	176	222	94	170	960	6,237
New Zealand.....		1			1	1							3
Portuguese.....						2		2					4
Polish, Austrian...	58	28	10		2		6	11	5	6	6	11	143
" German.....	7	2	1								6		16
" Russian.....	25	22	5		3	4	5	2	3	1	1	3	74
Persian.....										3			3
Roumanian.....	7	21	2		2	1		10	4	1	18	22	88
Russian, N.E.S....	540	124	81	31	15	47	25	65	49	27	54	104	1,162
Finnish.....	13	49	12		4		1	7	1	2	8	10	107
Spanish.....	4	3	22		7	5					1	5	47
Swiss.....	25	12	6	1	6	8	1	3	4		2	3	71
Servian.....	4	1	4										9
Danish.....	20	11	11	7	1	1	1	3	3		3	15	6
Icelandic.....	1												1
Swedish.....	83	110	46	13	21	12	16	26	9	7	34	48	425
Norwegian.....	65	41	5	15	8	2	2	2	4	6	8	25	183
Turkish.....	41	24	76	36	30	5	2	12	7	1	5		239
Syrian.....	1		6		2	2		4	2	2		1	20
U.S.A. Citizens...	1	1		1	9	4	1	2	3		3	9	34
Hindoo.....		4											4
Negro.....			7										7
Totals.....	5,437	2,548	1,153	605	788	738	512	635	702	513	969	3,130	17,730

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TABLE IV.

MONTHLY Arrivals of Immigrants for Canada, by Occupation and Destination, via Ports in the United States, for the Fiscal Year ending March 31, 1911.

—	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Totals.
Agriculturists.....	2,487	1,253	467	207	206	270	191	212	89	70	316	1,289	7,057
General labourers..	1,546	687	330	205	278	152	123	215	250	111	176	827	4,900
Mechanics.....	554	212	144	70	77	96	54	40	30	9	46	134	1,466
Clerks.....	151	94	37	29	46	23	25	16	27	34	40	90	612
Miners.....	73	26	13	7	16	5	16	9	6	3	11	65	250
Female servants....	248	89	39	24	32	35	36	31	101	78	106	152	971
Not classified.....	378	187	123	63	133	157	67	112	199	208	274	573	2,474
Totals.....	5,437	2,548	1,153	605	788	738	512	635	702	513	969	3,130	17,730
Maritime Provinces	175	26	20	20	19	7	17	11	4	11	2	24	336
Quebec.....	1,455	443	257	110	216	170	86	184	209	142	209	564	4,045
Ontario.....	1,954	1,227	555	316	383	364	218	220	302	205	340	1207	7,291
Manitoba.....	740	245	74	42	28	36	36	50	49	52	125	374	1,851
Saskatchewan ..	386	116	62	19	20	28	38	48	38	19	66	206	1,046
Albertain.....	352	184	109	37	39	39	44	46	27	11	70	226	1,184
British Columbia..	375	307	76	61	83	94	73	76	73	73	154	528	1,973
Yukon.....											3	1	4
Totals.....	5,437	2,548	1,153	605	788	738	512	635	702	513	969	3,130	17,730

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TABLE

NATIONALITY, Sex, Occupation and Destination of Immigrant Arrivals for

	SEX.				TRADE OR								
	Males.	Females.	Children.	Totals.	Farmers and Farm Labourers. Class.			General Labourers.			Mechanics.		
					Males.	Females.	Children.	Males.	Females.	Children.	Males.	Females.	Children.
African, South..	6	1		7	2			1					
Australian..	8	3		11	2			3					
Austrian, N. E. S..	583	78	54	715	502	30	30	48	7	6	21	5	9
Bohemian..	11	6		17	2						6	2	
Croatian..	59	5	3	67	35			24					
Dalmatian..	16	1		17	15	1		1					
Galician..	19	2	1	22	8			11		1			
Hungarian, N. E. S..	99	53	50	202	67	18	24	26	12	12	3	1	1
Magyar..	25	17	15	57	9	1		16	4	5			
Ruthenian..	290	48	50	388	248	21	27	38	2	5	4		
Slovak..	60	17	16	93	47			12					
Belgian..	186	52	44	282	94	13	7	40	7	7	23	8	8
Bulgarian..	171	2		173	80			85			3		
Brazilian..	1	1	8	10				1	1	7			
Dutch..	67	33	31	131	33	9	16	6			11	4	2
French..	183	92	35	310	40	10	10	27	5	4	8	1	3
German..	294	164	137	595	115	55	52	30	3	11	44	13	33
English..	2,093	876	379	3,348	815	172	166	245	22	20	360	88	40
Welsh..	81	28	11	120	37	3	5	11	2	1	13	4	1
Scottish..	458	307	58	823	70	13	11	66	10	9	134	16	4
Irish..	244	127	24	395	56	8	7	49	4	6	31	7	
West Indian..	34	55	3	92	3			4	2		4	3	
Jamaican..	7	17		24	2	1		1			2	1	
Greek..	332	19	17	368	85	2	2	227	8	8	12	3	2
Hebrew, N. E. S..	15	10	7	32	1	2	1		1		3	2	
" Russian..	160	153	137	450	24	10	17	30	27	20	56	39	20
" Austrian..	14	9	4	27	3	2	1	1	1	1	1	1	
" German..	1			1									
Italian..	5,312	571	354	6,237	2,391	119	101	2,509	186	137	191	33	7
New Zealand..	3			3							2		
Portuguese..	1	3		4									
Polish, Austrian..	106	22	15	143	68	5	9	30			6	1	
" German..	14	1	1	16	3			1			3	1	1
" Russian..	53	13	8	74	31	3	5	14			5		2
Persian..	3			3	3								
Roumanian..	50	19	19	88	26	11	17	12	2	2	4		
Russian, N. E. S..	671	187	304	1,162	440	101	230	165	16	32	36	15	12
Finnish..	88	13	6	107	18	1	5	67	1		2		
Spanish..	39	4	4	47	30			4			2		
Swiss..	40	14	17	71	19	6	7	7	1	2	8	2	5
Servian..	9			9	5			3					
Danish..	52	18	6	76	27	3	3	9	1		9	3	2
Icelandic..	1			1							1		
Swedish..	314	70	41	425	93	8	15	176	11	12	27	4	4
Norwegian..	115	38	30	183	40	5	17	49	6	10	7		
Turkish..	218	11	10	239	28	2	2	177	3	4	4		
Syrian..	10	5	5	20	1	1		2	1	1	3		
U. S. A. Citizens..	9	10	15	34	5	5	5	1			1		
Hindoo..	3		1	4									
Negro..	2	5		7				1	1		1	2	
Totals..	12,630	3,180	1,920	17,730	5,623	641	793	4,230	347	323	1,051	259	156

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V.

Canada, via Ports in the United States, for the Fiscal Year ending March 31, 1911.

OCCUPATION.									DESTINATION.								
Clerks, Traders, &c.			Miners.			Female Servants.	Not Classified.			Maritime Provinces.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Yukon.
Males.	Females.	Children.	Males.	Females.	Children.		Males.	Females.	Children.								
1			1			1	1				1	1			1	3	
6			1	1		26	3	3			1	3	3		1	2	
			2	1		3	1				231	212	134	49	63	20	
						1		4	3		13	36	5	1	5	7	
						2					4	13					
						10	3	12	13		6	10	2	2	1	1	
						3		9	10	5	3	89	45	28	22	15	
						16		9	18	1	132	84	79	40	45	7	
						5	1	12	16		1	45		11	7	29	
6			4	2	5	8	19	14	17		50	39	128	12	34	19	
			1				2	2		3	32	135		1		2	
									1			1	9				
7						6	10	14	13	2	7	52	15	14	39	2	
21	2		6	1	2	8	81	65	16	2	153	46	44	22	36	7	
41	10	9	7	5	7	28	57	50	25	2	43	153	152	95	95	55	
195	39	19	37	5	9	285	441	265	125	171	600	1,288	353	275	254	406	1
5	1					7	15	11	4	2	10	48	16	13	20	11	
62	8	1	11			190	115	70	33	9	239	296	94	30	51	103	1
60	16	2	6			64	42	28	9		75	195	54	4	30	37	
3	1					42	20	7	2	5	29	58					
1						10	1	5			3	20			1		
4			1	1		3	3	2	5		166	155	9			38	
4						7	7	5	6		11	12	4		5		
16	2	2				12	34	63	78		92	231	108	4	4	11	
2	2	1				2	7	1	1		13	12	1	1			
							1									1	
12	2	1	106	4	3	103	103	124	105	74	1,744	3,169	128	8	170	944	
							1	3				2			1		
						13	2	3	6	11	4	42	35	5	17	4	
			1			7	6	3	1		12	1	1	3			
			1				2	3	1	1	28	36	7		1	1	
2						1	6	5			30	3					
10			9	1	2	37	11	17	28	5	136	327	270	248	135	41	
1						10		1	1		3	74	2	2	15	11	
2	1	1				2	1	1	3	2	26	11	8				
3						3	3	2	3		26	13	10	1	10	11	
							1				1	7			1		
2						7	5	4	1	1	12	18	13	5	23	4	
													1				
4	1		2	1		35	12	10	10	12	38	79	71	57	63	105	
9			2	1		17	8	9	3	5	4	20	24	61	26	41	2
4	1	2					5	5	2	3	36	188	4	2		6	
3						1	1	1	4	8	2	6				4	
			1			1	1	4	10	3	6	7	5			13	
1							2		1		2	2					
						2					2	5					
457	87	38	199	23	28	971	1,040	852	582	336	4,045	7,291	1,851	1,046	1,184	1,973	4

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DEPORTATIONS, after having been admitted, by causes, from December, 1902, to March 31, 1911.

Causes.	FISCAL YEAR.									Totals.
	1902-3.	1903-4.	1904-5.	1905-6.	1906-7. (9 mos.)	1907-8.	1908-9.	1909-10.	1910-11.	
Abscess.....					2	1	2	2	2	9
Accompanying pa- tients.....	4	3	1	4	35	26	21		18	112
Alcoholism.....					2	2	27		9	40
Anaemia.....							1			1
Arteritis Cerebral.....									1	1
Asthma.....		1							2	3
Bad character.....							7	9		16
Blindness.....				1		2	3			6
Cataract.....						1	1			2
Defective sight.....		1		6	4	5	11			28
Trachoma.....			2			1	1	2	8	14
Bright's disease.....						2	3			5
Bronchitis.....		1	1			3	1			6
Cancer.....				1			2		1	4
Catarrh.....									1	1
Chronic dysentery.....	1	2	1	1	1					6
Criminality.....		1	8	1	12	68	115	130	172	507
Crippled.....		4	4	8	4	4	11			35
Curvature of spine.....						3	1			4
Cystitis.....	1	1		1	2	1	1	1		8
Deafness.....						2	4			6
Diabetes.....					1		2			3
Dislocations.....	2					1				3
Drug habit.....										1
Eczema.....							1	6		7
Epilepsy.....	6	4	2	6	6	15	22	8	10	79
Fistula.....						1	1			2
General debility.....	7	8	7	18		60	97	27	1	225
Haemoptysis.....	1	1								2
Heart disease.....	2	1	3	7	3	5	13	4	3	41
Hernia.....			2	3			8		2	15
Hemorrhoids.....	1									1
Insomnia.....		1				1		1		3
Injured.....						7	6		1	14
Idiocy.....	1		4					2		7
Imbecility.....		1	1	1	2	2	35	1		43
Insanity.....	1	5	5	12	53	110	113	95	121	515
Mental weakness.....	7	7	1	17	20	43	1	9	17	122
Malaria.....						1		2		3
Muscula: atrophy.....				1				2		3
Neurasthenia.....	1		1						1	3
Nostalgia.....									1	1
Paralysis.....		3	1	7		5	5	3	2	26
Pleurisy.....	1	1								2
Poisoning (lead).....					1					1
Potts disease.....							2			2
Pregnancy.....						1		3		6
Prostitution.....		1		2		8	8	6	10	35
Public charge.....	12	19	19	18	28	309	1,074	348	289	2,116
Rheumatism.....	8	7	6	11	10	29	15	8	2	96
Senility.....						8	10	3	1	22
Tuberculosis.....	7	8	13	6	13	67	54	30	33	231
Vagrancy.....				2		21	56	29	61	169
Varicose veins.....	1	1		3	2	5	6			18
Veneral disease.....		1	1			4	4	2	2	14
Violation of Immi- gration Act.....									12	12
Not given.....	3	2	2				3			10
Totals.....	67	85	86	137	201	825	1,748	734	784	4,667

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DEPORTATIONS, by Nationalities, from December, 1902, to March 31, 1911.

Nationalities.	FISCAL YEAR.									Totals.
	1902-3.	1903-4.	1904-5.	1905-6.	1906-7. (9 mos.)	1907-8.	1908-9.	1909-10.	1910-11.	
African, South.....							1			1
Australian.....						1	1	4	1	7
Austrian, N.E.S.....		1				4	17	4	10	36
Bohemian.....							3	1		4
Bukowinian.....			1			5	4		3	13
Galician.....	1		1	4	4	15	16	11	10	62
Hungarian, N.E.S.....				1	1	3	1			6
Ruthenian.....							1	6	5	12
Slovak.....									1	1
Belgian.....				1	2		2	8	6	19
Bulgarian.....						65	74			139
Chinese.....			1		1	1	1	1	2	7
Dutch.....						10	12	3	2	27
French.....			1	1	3	4	18	11	12	50
German.....		1			1	8	7	17	10	44
English.....	43	50	55	98	114	513	1,081	355	340	2,649
Welsh.....		1		3	2	2	1	5	3	17
Scotch.....	7	6	7	8	26	61	119	89	90	413
Irish.....		1	2	3	10	31	34	37	23	141
West Indian.....							3	1	6	10
Jamaican.....				1			1			2
Greek.....							32	2	11	45
Hebrew, N.E.S.....			1	8	2	2	32	2	3	50
" Russian.....				1	2	6	11	1	5	26
" Polish.....						1		1		2
" Austrian.....							2		1	3
Italian.....	1	4	1		1	13	13	15	13	61
Japanese.....							4	1	1	6
Newfoundland.....								8		8
Polish, N.E.S.....				1	1	8		2	3	15
" German.....								1		1
" Russian.....						1	3	1	1	6
" Austrian.....									1	1
Roumanian.....	1	1				2	42	3	2	51
Russian, N.E.S.....						1	9	5	5	69
Finnish.....		4	1			2	3	4	4	18
Spanish.....							1			1
Swiss.....							2	2	1	5
Servian.....									7	7
Danish.....		2	2	2	1	6	4	2	3	22
Icelandic.....	3			1				1		5
Swedish.....	3	1	2	1	4	9	7	6	8	41
Norwegian.....	8	2	1	1	1	4	2	3	12	34
Turkish.....							20			20
Syrian.....						1	1	1	7	10
U.S.A. Citizens.....				2	8	37	98	119	169	433
Negro.....						1	1			2
Hindoo.....							24	1	1	26
Not classed.....		11	10		16				2	39
Totals.....	67	85	86	137	201	825	1,748	734	784	4,667

N.E.S.—Not elsewhere specified.

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DEPORTATIONS by Provinces, from December, 1902, to March 31, 1911.

Provinces from which deports were sent.	FISCAL YEAR.									Totals.
	1902-3.	1903-4.	1904-5.	1905-6.	1906-7. (9 mos.)	1907-8	1908-9.	1909-10.	1910-11.	
Maritime Prov.....		2		3	5	12	19	24	25	90
Quebec.....	18	16	8	27	37	131	684	97	165	1,183
Ontario.....	3	3	2	19	67	343	907	378	349	2,071
Manitoba.....	$\frac{1}{2}$				84	233	48	97	121	
Saskatchewan.....	$\frac{1}{2}$	44	64	55	1	2	27	19	23	1,054
Alberta.....	$\frac{1}{2}$				4	12	14	63	55	
British Columbia.....						56	49	56	46	207
Not given.....	2		21		3	36				62
Totals.....	67	85	86	137	201	825	1748	734	784	4,667

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The following is a statement showing Immigration Literature, &c., ordered during the fiscal year:—

	Copies.
'Last Best West,' English.. . . .	571,675
" French.. . . .	30,000
" Danish.. . . .	10,000
" Norwegian.. . . .	25,000
" Swedish.. . . .	25,000
" German.. . . .	25,000
Atlas of Canada, English.. . . .	100,000
" French.. . . .	270,125
" Swedish.. . . .	5,200
" Norwegian.. . . .	5,150
" Flemish.. . . .	10,250
" Dutch.. . . .	5,250
" Finnish.. . . .	5,100
" German.. . . .	10,250
British Columbia, Canada Land of Promise.. . . .	10,000
Immigration Act, English.. . . .	25,000
" French.. . . .	5,000
Prince Edward Island Pamphlet.. . . .	10,000
White Labour in British Columbia.. . . .	10,000
Land Regulations in Canada.. . . .	100,000
Nova Scotia Pamphlet.. . . .	120,000
Immigration Facts and Figures.. . . .	10,000
The Country Called Canada, English.. . . .	100,000
" " French.. . . .	10,000
New Brunswick Pamphlet.. . . .	20,000
Calendar, Prosperity and Happiness in Western Canada.. . . .	50,000
School Teachers' Trip to Canada.. . . .	50,000
Canada's Farthest South.. . . .	20,000
Canada Wants Domestic Servants.. . . .	100,000
An Agricultural Tour in Canada.. . . .	125,000
The First Half Century of Ottawa.. . . .	200
Swedish Pamphlet.. . . .	1,000
French Leaflet.. . . .	25,000
Five Thousand Facts About Canada.. . . .	500
Opportunities in Canada.. . . .	10,000
L'Alberta Region Centrale.. . . .	5,000
The Heart of Canada Orchard and Dairy Region.. . . .	15,000
Classes Canada Calls For.. . . .	50,000
Prosperity Follows Settlement.. . . .	50,000
Le Canada Agricole.. . . .	10,000
Land Regulation Pamphlet.. . . .	50,000

NEWSPAPERS.

Alberta Herald, German.. . . .	26,000
" " " Special Crop Edition.. . . .	10,000
Bassano News.. . . .	4,000
British News of Canada.. . . .	52,000
Canada Posten, Swedish.. . . .	26,000
" " " Special.. . . .	5,000

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<i>Canada Life and Resources</i>	700
<i>Canada</i> , Swedish	24,000
<i>Canada</i> , Hungarian	9,000
<i>Canada Gazette</i>	26,000
<i>Canada</i> , London, England	2,000
<i>The Danebrog</i> , Danish	12,000
“ “ “ Special	500
<i>Der Deutsch Courier</i>	5,000
<i>Der Nordwesten</i> , German	26,000
“ “ “ Special	10,000
<i>Logberg</i> , Icelandic	52,000
<i>Le Nouvelliste</i> , French	12,000
<i>Norronia</i> , Norwegian	26,000
<i>Saskatchewan Courier</i> , German	19,760
“ “ “ Special Edition	5,000
<i>Lethbridge Herald</i>	700
<i>Saskatoon Phoenix</i>	14,650
<i>Scottish Canadian</i>	750

MAPS.

Dominion of Canada (small)	18,500
“ “ “ School Map	5,000

There were 336,274 pieces of mail received and attended to in my office during the year, as against 220,865 pieces in 1909-10, an increase of 115,409, or 52 per cent.

Your obedient servant,

W. D. SCOTT,

Superintendent of Immigration.

No. 1.

OPERATIONS IN EUROPE.

REPORT OF THE HIGH COMMISSIONER.

17 VICTORIA STREET, LONDON, S.W.,

April 12, 1911.

The Honourable

The Minister of the Interior,
Ottawa.

SIR,—I have the honour to transmit the annual reports of the emigration agents of your department in Europe for the year ended March 31, 1911. These gentlemen are as follows:—

Mr. J. Obed Smith, Assistant Superintendent of Emigration, 11-12 Charing Cross, London, S.W.

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Mr. Alfred F. Jury, Old Castle Buildings, Prceson's Row, Liverpool.

Mr. G. H. Mitchell, 139 Corporation Street, Birmingham.

Mr. L. Burnett, 16 Parliament Street, York.

Mr. Andrew O'Kelly, 81 Queen Street, Exeter.

Mr. John McLennan, 26 Guild Street, Aberdeen.

Mr. Malcolm McIntyre, 35-37 St. Enoch Square, Glasgow.

Mr. Edward O'Kelly, 44 Dawson Street, Dublin.

Mr. John Webster, 17-19 Victoria Street, Belfast.

Mr. D. Treau de Cœli, 23 Place de la Gare, Antwerp.

Of the above, Mr. Andrew O'Kelly is temporarily looking after the work of the Exeter agency, having been sent there to take charge of the office on the resignation of the late agent, Mr. Alexander McOwan, who relinquished his position in February last. Your department has since appointed Mr. W. B. Cumming to succeed Mr. McOwan in the Exeter agency.

For some years past it has been the practice to send to this country each year men who have emigrated to Canada from various parts of the United Kingdom and have achieved success as farmers in Canada, for the purpose of visiting those portions of the Old Country with which they were formerly identified, with a view to arousing interest in the opportunities to be obtained in the Dominion. The following is a list of the delegates sent over during the season under review:—

Mr. George A. Aylesworth, of Newburgh, Ont.

Mr. C. Aime, of Emerson, Man.

The Rev. T. Bourke, of Kingston.

Mr. J. G. Butterfield, of Forester, Sask.

Mr. G. Binnie, of Bunessan, Ont.

Mr. E. W. Brewster, of Lennoxville.

Mr. J. Brunskill, of Pense, Sask.

Mr. G. A. Craigie, of St. John, N.B.

Mr. George E. Clubb, of Morris, Man.

Mr. H. H. Collins, of Vermilion, Alta.

Mr. R. Chamberlain, of Toronto.

Mr. Jos. Dothwaite, of Eagle Hill, Alta.

Mr. F. Fredericksen, of Winnipeg.

Mr. J. Graham.

Mr. G. Gordon, of Oak Lake, Man.

Mr. S. R. Horsford, of W. End House, Brandon.

Mr. C. E. Johnson, of Fillmore, Sask.

Mr. J. E. Kringen, of Viking, Alta.

Mr. W. R. Little.

Mr. P. Lyall, of N. Portal, Sask.

Mr. P. H. McKenzie, of Lucknow, Ont.

Mr. H. McKerracher, of Paisley, Ont.

Mr. D. McLeod, of Montreal.

Mr. A. D. McLeod, of Stornoway, Sask.

Mr. G. Mercier, of Dumas, Sask.

Mr. J. J. McHugh, of Alberta.

Mr. M. Peace, of Wadena, Sask.

Mr. J. Riddell, of Winnipeg.

Mr. P. Ramsay, of Headlands, Sask.

Mr. H. Sampson, of Brandon.

Mr. B. P. Saloway, of Haleyonia, Sask.

Mr. G. J. Stephenson, of Pavnton, Sask.

Mr. H. Stuart, of Morris, Man.

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Mr. Peter Sutcliffe.

Mr. J. Williams, of Melita, Man.

Mr. R. Willoughby, of Woodglen, Alta.

Mr. F. W. Wright, of Astwood, Sask.

Mr. H. Yake, of Moosejaw.

The official measures which were adopted in 1909, with the object of restricting emigration to such classes and persons as are desirable, have remained in force. That these regulations have been successful in the direction of attaining the objects in view, is evidenced by the very small percentage of emigrants from the British Isles who were refused landing in Canada during the past fiscal year.

It is further satisfactory to note that the deportations which took place under the Immigration Act, during the same period, were greatly reduced in number, as compared with previous years.

It is also a favourable sign that it has been found possible to relax the landing conditions in some respects as originally framed; this applies to the approval which has been given to the emigration, during the coming season as during last, of the wives and children of men already in Canada, who are engaged there in other than farm work, in cases where financial assistance is required to meet the cost of their passages, provided that the men are able to receive and provide for their families.

It is gratifying also that the conditions permit of the extension, during the period between April 1 and July 31, of this year, of the policy by which British emigrants, irrespective of their employment, are allowed to enter Canada without the necessary funds to comply with the money qualification, providing they are in other respects desirable, are going to be assured permanent employment, and have the means of reaching their destination.

The present prospects point to a great movement during the season now opened, and there is good ground for hoping that a large number of suitable emigrants will continue to flow into Canada.

I have the honour to be, sir,

Your obedient servant,

STRATHCONA.

No. 2.

REPORT OF J. OBED SMITH.

11 AND 12 CHARING CROSS, LONDON, S.W., April 1, 1911.

The Right Honourable LORD STRATHCONA AND MOUNT ROYAL,
High Commissioner for Canada.

MY LORD,—I have attached hereto the individual reports to myself from the various emigration agents of this branch, covering their operations for the fiscal year ending March 31, 1911, and beg to submit the following as my report of the Emigration Branch of the Department of the Interior, controlling the agencies in the United Kingdom and in Antwerp for the said fiscal year.

Although one or two of the leases of the premises occupied by our branches in the British Isles have run out, we have been unable to secure more commodious or

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suitable premises, and such leases have been temporarily renewed, so that the location of all the agencies remains the same as at the termination of the previous fiscal year.

I took occasion in my last annual report to refer to a certain sign of the increasing interest taken in Canada and the widely comprehensive questions asked by inquirers, as an indication that the Canadian government might expect a large number of very desirable emigrants from Northern Europe to Canada during the fiscal year just closed, and I am glad to be able to report to Your Lordship that such desires and hopes have become satisfactory facts. Indeed, the situation calling for an emigration propaganda nowadays is scarcely the same as in previous years. We are not dealing merely with people as a class, or in large numbers in any class, but our agents are obliged to meet demands for information upon very many of the illimitable phases of human life and existence as it may affect the intending emigrant in seeking a home in another land. This has called forth a higher degree of intelligence and experience, which I am pleased to say our agents have been able to afford to the gratification of all concerned, and has meant that instead of a short stereotyped reply an inquirer needs several lengthy and well considered communications before he decides. I consider this additional work the necessary complement to Canada's demand for the highest type of people to join her nationhood.

The above mentioned conditions seem to become more accentuated year by year, and have rendered more necessary the continuance of the practice of sending several of our important agents to see for themselves the then present conditions in Canada for the purpose of improving the work in this particular branch. Several of our agents and lecturers were ordered to Canada for this purpose during the past fiscal year, and already the result has been such as to enable me to commend the practice, and suggest its continuance during the coming year.

One of the most important features of our work has been the visiting of booking agents by departmental officials, with a view to stimulating them in their work, and where an agent is not energetic or satisfactory, to seek to amend those conditions; and this I deem so highly important that I am constrained to urge upon the department the increase of the staff in each agency, so that this work, although now done to the full extent of our agents' time and capacity, should be much more adequately covered by regular agents of the department. I need only point out that there are thousands of booking agents distributed throughout the British Isles, and it is manifestly a physical impossibility for an agent without assistance to adequately cover the hundreds of agents in his district, even once in two years. We have endeavoured to stimulate the cordial goodwill towards Canada and the department among these booking agents, who can so often secure or lose a desirable emigrant, and I am glad to note when a question arises as to a payment of a bonus, the circumstances of the case are carefully considered by the department, and any doubt is thrown in favour of the agent who has secured the accepted emigrant.

In addition, it is proposed as far as the capacity of the staff and the appropriation will permit, to furnish to a number of such booking agents, for display in their windows, a dressed design of grain in the straw, &c., &c. This has already been carried out to some extent, and will, if the appropriation be available, be continued as a distinct feature of the propaganda for the coming year.

Very considerable attention has been given to advertising in newspapers and periodicals likely to reach the class required in Canada, and to the successful work accomplished in that way the present satisfactory condition of emigration to Canada must to some extent be attributed. One can easily recall, comparatively a few years ago, when Canada was little heard of in the British Isles and seldom mentioned. Many conditions have contributed to a change in that condition of affairs, but the fact remains that it is now almost impossible to wade through the mass of daily clippings from the London and provincial journals which make allusions to the past,

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present and future of our Dominion. By a careful and consistent regard for absolute facts and conservative figures it is hoped that this confidence now established with the British people will be maintained in the future to the great benefit of all concerned.

It is advisable to recall the recurrence of schemes more or less ambitious, and more or less detrimental to the would-be emigrant which invariably increase in activity as our emigration propaganda is enlarged. We have had occasion during the past year to take steps in several cases where advertisers appear to make suggestions inimical to the interests of an emigrant, and therefore, against the welfare of Canada, but these ambitious persons confine their advertising and operations to second-class passengers, and as the Merchant Shipping Act of 1906 provides a penalty for false representation or fraud regarding only steerage passengers in a ship, I have hitherto found it impossible to apply the regulations of the only statute in British legislation that appears to cover such cases. It is well known to His Majesty's Board of Trade that this difficulty is present, and it is hoped that such an opportunity may arise to amend the law, so as to cover such cases, no matter whether an emigrant takes second, or even a first-class passage. This appears to be more necessary from now on because the improved class of emigrant seeks improved accommodation, and the somewhat anomalous situation has already arisen, namely, that second-class accommodation on the steamers is now full before that of the steerage, in vessels going to Canada.

During the year our exhibition motor cars and horse wagons have been in full and constant operation, indeed they have been so constantly on the road that both exhibition motor cars have required a thorough overhauling as regards the body and machinery. The success of this portion of the propaganda has been so pronounced that it is intended to continue the same through the present year, and to follow up the idea of teaching the younger generation about Canada by the distribution of school atlases to school children, and short addresses by our agents in charge of the exhibition wagons.

Not only can it be recorded with absolute truth that during the fiscal year just closed the emigrants going from the British Isles to Canada reached the highest standard on record, but it must be noted that for the first time in the history of emigration from Great Britain, the year 1910 showed more British people going to Canada from the British Isles than to the United States.

During the fiscal year there were 380 sailings of steamships from the British Isles carrying passengers to Canada, and the records of arrivals thus far available indicate a very substantial increase over the number of the previous year.

I recommend that the present system of paying a bonus to licensed booking agents on special classes of emigrants be continued. Without question on the part of any one in the service of the department here, this encouragement is not only advisable but essential.

The various agencies of the department outside London have been inspected from time to time, and I am pleased to report a satisfactory condition. Nothing could exceed the ability, intelligence and care with which the officers of the department apply themselves to their work within the lines of the policy laid down by the department, and they will, I am sure, receive your Lordship's commendation in the successful carrying out of their duties. In this connection I have to record my regret that Mr. Alexander McOwan, for some time our agent at Exeter, deemed it necessary to sever his connection with the department, and return to Canada to engage in business for himself. Mr. McOwan's services could hardly be more satisfactory to the department and the general public than they were, and I trust that the agents of the government will receive reasonable recognition from the department in

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the way of adequate remuneration for their services, in view of the exceedingly large increase in their work and peculiar fitness for the same, which each one is required to have and to use.

The sending of practical, experienced farmer delegates from Canada has been continued with pronounced success. It is well known to Your Lordship that the personal element enters more largely into the question of emigration every year, and a decision is frequently arrived at only when such farmer delegate is sent by one of our officers to see the family and talk matters over in detail. I cannot commend a continuance of the policy too highly.

Supplementary to the efforts of these authorized delegates must be placed a number of British settlers who, having succeeded in Canada, returned during the Christmas holidays to visit their old homes. These, willingly or not, have been obliged by pressure from their friends to become amateur emigration agents, and tell the story of Canada again. I desire to commend especially anything which would induce still larger numbers of persons to visit their old homes from Canada, as I can conceive of no better policy than what may be called 'induced' emigration.

Auxiliary to the official lectures of the department have been a series inaugurated by the transportation companies and others interested in the movement to Canada. These have been uniformly successful, and have undoubtedly tended to stimulate the present record stream of emigration from the British Isles. This work should be continued with vigour, and we must not lose sight of the fact that when our propaganda slackens, or our efforts lighten, a decrease in the figures of emigration will become immediately apparent.

I am obliged, very respectfully, to repeat my previous recommendation that new agencies should be formed for the principality of Wales, and another for the eastern counties of England, because it is impossible to properly cover these large and desirable portions of England and Wales with the small number of officers engaged in the work. At present Wales is split up between the Liverpool, Birmingham and Exeter agencies, and as we have no Welsh agent or office, it is useless to distribute literature in the Welsh language, directing the emigrants to correspond with the government officers. Nevertheless, two special delegates that we have placed at work in Wales for the last three or four months have rendered excellent service. It is only right that this should be mentioned in their favour, but it affords at once, in my opinion, a distinct proof of the need of a government agent for that principality. The proposed agency for the eastern counties of England would take off a portion of the territory now indifferently covered by the London, Birmingham and Liverpool offices.

The policy of placing wall maps in schools and giving school atlases to all school children who apply for the same has been continued, and no effort has been spared to get in touch with those who are likely to prove desirable acquisitions to our Dominion. Indeed, the demand for literature has been so great that at times we have been obliged to have small extra editions of the pamphlets printed here, so as to prevent disappointment to inquirers, and I desire to emphasize the fact that good use can be made of a still greater quantity of literature of all classes.

Under the amendment to the Immigration Act the responsibility of inspecting and approving of all charity aided emigrants has been laid upon the staff, and, with every desire to be fair to the applicant, we have never lost sight of the fact that the policy of the department is to admit only those who are likely to prove an acquisition to the Dominion; or, in the words of the Minister of the Interior, when he stated that 'Canada expected nothing from an immigrant except that he should succeed.'

During the past fiscal year we have had 2,048 cases presented for our consent as charity aided emigrants, and have given consent in 1,378.

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In addition to inspecting outgoing steamers from London, Liverpool and Glasgow, we have had thrown upon us the additional inspection of such steamers leaving Belfast, Londonderry, Southampton and Bristol, (and, we hope, Queenstown), and a statement of such inspection by our respective agents has, from time to time, been forwarded to Your Lordship and direct to the department. With the increase of emigration the sailings have been more frequent, and the number of ports from which sailings are made have increased, and as this inspection is a very necessary part of our agents' work, it is obvious that without additional assistance the propaganda cannot be worked out as fully as desired.

So good has been the effect of the regulations imposed in previous years, added to the very commendable and capable supervision of our agents, that not more than 300 of the emigrants from the British Isles in the past fiscal year, who sought landing in Canada, have been rejected.

Another evidence of the greater care and selection of emigrants on the part of all concerned may be noted in the greatly reduced number of deportations which have taken place under the Immigration Act during the past fiscal year. Arrangements were made with the steamship companies that most, if not all, of such undesirable emigrants on reaching the port on this side of the Atlantic should be furnished by the steamship companies with a rail ticket to their destination inland. This has relieved the department of considerable expense, and will unquestionably tend towards a still further and more strict examination on the part of the steamship lines. So long as human nature remains as it is, it is obviously impossible for any regulations to prevent the admission of some persons who may sooner or later become undesirable, and there can be no finer record than the very minute percentage that the deportations have to the aggregate figures of arrivals. We have not failed to continue the humane policy of the department to see that these unfortunates are placed with their friends, or otherwise temporarily cared for, although such obligation is not a legal one so far as this department is concerned.

All the transportation companies continue a most energetic programme, and have exhibited most commendable care in confining their operations to the policy laid down or changed from time to time by the department, and I desire to express the thanks of myself and staff for the great assistance they have given in the enormous work of handling human beings in such large numbers, under so many diverse conditions.

I am happy to record a continuance of the most cordial co-operation with this department by the Imperial government's emigration office, and the board of trade. It is a matter on which the department may congratulate itself, that the changes of policy inaugurated from time to time are rapidly copied by those seeking people from the British Isles to develop other lands.

Owing to the large increase of business, and our failure to secure increased office accommodation in these buildings, additional smaller offices were taken in Trafalgar Buildings, No. 1 Charing Cross, where a portion of our staff is situated.

Thirty thousand six hundred and thirty-nine persons visited the Charing Cross office, London, during the past fiscal year to make personal inquiry, and again we find increased interest adds to the number of questions to be discussed and settled.

Continuing the policy of previous years, our windows in this office have been an exhibition, so far as possible, of the agricultural products and natural resources of Canada, but this branch of the work can be much more specialized and developed if we can be furnished with material of all kinds required. The same may be said of all the other agencies of the department, whose windows, under the supervision of a special officer, are an object lesson to very large numbers who stop to read Canada's story by the exhibition of her products.

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The number of pamphlets in the English language received at the Liverpool office during the past fiscal year amounted to 1,150,570, and foreign pamphlets numbered 231,000.

The number of boxes of grasses and grains in the straw received at the Liverpool office during the fiscal year numbered 115, and the cases of threshed grains amounted to 81, but a much greater supply of grains and fruits is needed.

The correspondence of this office alone has largely increased over the previous fiscal year, and all the agents outside London have an exceedingly heavy mail each day, as the result of the previous very large distribution of literature which has taken place from all offices.

Many of the provinces of Canada have continued to supply this branch of the service with their own particular literature, but the supply has never yet reached the demand. These are not intended to take the place of the literature of our department, but when a person has expressed a desire for special information of a certain province, it is to the advantage of that province that we should have the official literature of that government to supplement what we can furnish of our own.

Nothing could exceed the cordial relationship between all the agents of the provinces of Canada and this department.

Your Lordship must have noticed the very strenuous attacks made on Canada by several journals, but it is a pleasure to note that the reading public decided that the statements were so far beside the mark that they have failed to have any effect, as evidenced by the exceedingly satisfactory conditions regarding quality and quantity of emigrants to Canada, to say nothing of the standing of the Dominion in the markets and public estimation.

For Your Lordship's kind consideration of the different questions arising from time to time, regarding which I have been obliged to trouble you, I desire to express my sincere, personal thanks, and confidently feel that Your Lordship will join with me in the great satisfaction in presenting this report to the department, together with my assurance of the great loyalty of the staff to the government of Canada.

I have the honour to be, my Lord,

Your Lordship's obedient servant,

J. OBED SMITH,

Assistant Superintendent of Emigration.

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No. 3.

REPORT OF A. F. JURY.

OLD CASTLE BUILDINGS, FREESON'S ROW,

LIVERPOOL, March 31, 1911.

The Assistant Superintendent
of Emigration for Canada,
London.

SIR,—During the past year the relative increase in the number of emigrants leaving this district for Canada has been maintained, and what is more important still, the quality has been quite equal to, if not above, those that have ever left this district, and from what I have seen when visiting the outgoing ships, the latter remarks applied equally to those leaving other districts. I am being continually met with the remark, 'you are sending the best of our population to Canada.' I must say that, if people can be judged by appearances the remark contains a lot of truth; at least I am quite sure that the average of those left of the same classes from which we draw our emigrants, will not compare with those who are leaving. The improvement in quality is the natural result of the more strict departmental regulations, and the increased ocean and rail rates, and that the increase in numbers should be maintained under these circumstances, bears eloquent testimony, not only to the drawing power of the Dominion, but seeing that a very large proportion of those leaving are going to relations or friends of previous emigrants, to the success and satisfaction those relatives and friends must have found in Canada. The old saying that 'the successful immigrant is the best immigration agent,' was never better exemplified than in the year just closed.

The same influence must go on in ever increasing volume in the future, as long as we have free and cheap land, and in my opinion the time is not far distant when Canada will receive as large an influx of population as the United States are receiving to-day. All the experience shows that the opening up of new land is followed by even a greater relative increase in the urban population and, though the efforts in this country are entirely directed to the encouragement of farmers, farm labourers, young men who wish to learn farming, female domestic servants, and capitalists, to go to Canada, we are thereby also building up the cities and towns because the natural demand caused by the introduction of these classes, for the service of all other classes, draws thousands to Canada every year to supply it. All other classes are so numerous in these Isles that any legitimate demand accompanied by reasonable wages and conditions of labour can always be supplied.

As we have the greatest area of unoccupied land in any white man's country in the world on which to make homes for the land hungry and the liberty loving surplus population of the old congested countries, it follows that with proper direction, the movement to Canada for many years to come, must be like a snowball rolling down hill, increasing in size the farther it goes. The demand for land under 'The Small Holdings Act' in this country, is conclusive proof of the land hunger that exists, were such proof wanting, and a large part of the disappointed applicants for land under that act, who are enormously greater in numbers than those who obtain land,

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will, as a matter of course, turn their attention to the colonies. These men are the very cream of the poorer part of the agricultural population of Great Britain, and no effort should, or is, being spared to bring before them the opportunities offered by Canada. This has been done in the past year to perhaps a greater extent than ever, by lantern lectures, attending agricultural shows and by attending market towns in agricultural districts on market days, meeting the small farmers, showing our products from exhibition motor cars, and wagons, and the distribution of departmental literature. The farmer delegates who have been working in this district have been kept busy meeting people at the offices of the various steamship agents, delivering lectures, attending market towns and visiting farmers and farm labourers in their homes. The only part of this district which I feel has not been properly worked is North Wales. That has been on account of my inability to speak the Welsh language, and I am of opinion that it is impossible to do justice to this important part of the United Kingdom without having one or two resident Welsh speaking agents. Mr. John Williams, of Melita, has done excellent work in the principality during the past winter, but if this kind of work is to be effective, it must be continuous. The Welsh would make most suitable emigrants for Canada, none more so. They are industrious, thrifty, sober, and ambitious; they have been used to and are not afraid of hard work. They have characteristics which in the work of nation building it would be well to assimilate. I am convinced that numbers can be got from Wales by the fact that where the local steamship agent is a live man, there is always good business done. An energetic resident government agent would be a great assistance to the live steamship agents, and would induce others to become more active.

Our correspondence has been much heavier this year than last, the letters received numbering about 13,500, and sent out about 14,000. In addition about 3,500 applications by letter or post card from school children for atlases have been dealt with.

Callers at the office for information on various subjects, numbered between 5,000 and 6,000.

I have received during this year claims from steamship agents for bonus on over 3,000 souls. This represents an increase of nearly 2,000 on last year's figures, which showed an increase of about 100 per cent on the previous year.

The lantern slides have again been in good demand amongst schoolmasters and others, many of whom have visited the Dominion and can speak from personal experience.

The meeting and inspection of deports entails a large amount of work on the staff of this office. In the year just passed 113 ships have been met and 425 deports have been handled, 58 of whom left this district. This latter work requires very nice handling and nearly all of it has been most judiciously attended to by Mr. S. Salingar, our interpreter, with the minimum of cost and friction, in addition to his other duties in the office, which consist of assisting in the clerical work and giving information to inquirers over the counter.

During the season I have delivered 47 lectures, most of which have been well attended, and from the reports of the local steamship agents, under whose auspices they have been given, good results have followed.

In conclusion, I must again highly commend my able assistant, Mr. Edwin MacLeod, for his untiring devotion to the work of the office and the invaluable help he has been to me.

Your obedient servant,

A. F. JURY,

Canadian Government Immigration Agent.

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No. 4.

REPORT OF G. H. MITCHELL.

139 CORPORATION STREET,

BIRMINGHAM, March 31, 1911.

J. OBED SMITH, Esq.,

Assistant Superintendent of Emigration,
London.

SIR,—I beg to submit my report for the fiscal year ending March 31, 1911.

The active emigration which was taking place at the time my last report was written continued during the year, but large as was the movement last spring it has been quite eclipsed by that which is now taking place, and the figures would be larger still but for the fact that the steamers are booked full for weeks ahead. Many booking agents have informed me that the business they have done constitutes a record. The quality too is on all hands admitted to be of the highest. I have no means of telling what the total emigration has been from my particular district, but the increase is scarcely likely to have been at the same ratio as the increase in the bonus passengers. Claims on 2,264 persons have been forwarded to the department as against 1,105 last year, an increase of over 100 per cent. From this I conclude that a larger proportion of the people from my district belong to the classes most desired, and I attribute the fact to the country lectures, which were arranged for the delegates last year. They were so successful that the same policy was pursued in connection with the delegates sent me this winter, and I organized 124 meetings for them at which our slides were shown with the aid of a lantern. There was not one failure, and almost invariably very great interest was evinced. The Canadian steamship and railroad companies have also pursued an active lecturing campaign, but their operations have been chiefly in the towns.

Capitalists in the midlands, like those in other parts of the country, are investing largely in Canadian lands and other securities, and one firm in Birmingham have sent out £37,000 during the past twelve months—on their own behalf, and that of their friends—for loan on farm properties.

Advantage was again taken of the spring exhibition at Bingley Hall to make a display of Canadian produce, and during the three months in which it was held the stand was visited by a great number of people who took away a large quantity of literature.

The principal agricultural shows were utilized as usual, and I attended with my stand at the Northamptonshire, Herefordshire and Worcestershire, Shropshire, Peterborough, Lincolnshire, Staffordshire and Leicestershire exhibitions; Warwickshire was done by the motor van. At several of the minor shows a distribution of pamphlets was made.

There has been a further heavy increase in the office work, the communications received numbering 12,874, those sent out 7,346, and the callers 5,993.

Your obedient servant,

G. H. MITCHELL,

Canadian Government Immigration Agent.

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No. 5.

REPORT OF L. BURNETT.

16 PARLIAMENT STREET,

YORK, March 31, 1911.

J. OBED SMITH, Esq.,

Assistant Superintendent of Emigration,
London.

SIR,—In submitting the annual report from York district for the year ending March 31, 1911, I have the greatest pleasure in stating that never in my experience did I know such an inclination on the part of the people of this country to emigrate to Canada. A large number who have gone from this district in former years have been visiting this country during the winter months and in most cases are taking others back with them. I could mention many cases of farmers disposing of their possessions here and taking out not only their families, but their servants as well.

A large number of lectures have been delivered in the district either by myself or by Canadian farmer delegates, and I must say that lectures were never better attended and more appreciated than during the past year. In country places the buildings have been packed, and in the cities audiences have been as high as 1,400 at a lecture. I have attended the leading fairs and agricultural shows and have had a stand erected at the principal ones for the exhibition of Canadian products, and amongst the places visited were the Home Exhibition at Harrogate and the Fat Stock Show at York. The latter is one of the leading shows of cattle that is held in this country, and is attended by practically all the principal farmers and a large number of the farm hands in the North of England. Inquiries at these shows were innumerable, and very often I had quite a crowd round the stand waiting for information. At all the shows I visited I had a good supply of literature distributed.

The business at this office is steadily increasing, and it is impossible to travel on the cars or attend any gathering without hearing the people talk of Canada. There is a feeling of general unrest in this country consequent upon hard times the people have had to submit to, but they are now beginning to realize that Canada offers a golden opportunity to those who are anxious to improve their circumstances, which is what they have never realized to the same extent before. I am satisfied that as years go by, there will be a greater influx of people to Canada from this country, and they will find there a very desirable country to live in, where they may acquire a competency, if they so desire.

Your obedient servant,

L. BURNETT,

Canadian Government Immigration Agent.

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No. 6.

REPORT OF A. O'KELLY.

81 QUEEN STREET,

EXETER, March 31, 1911.

J. ORED SMITH, Esq.,

Assistant Superintendent of Emigration,

London.

SIR,—I beg to submit report of the work of this agency for the year ending March 31, 1911.

My connection with this office dates from February 28, when I was appointed to take temporary charge in the place of Mr. Alexander McOwan who had resigned his position as agent.

During the winter season Mr. McOwan made a special feature of his lecturing work. He delivered some forty lectures in large agricultural centres, and utilized the motor exhibition car when in this district to attend many of the markets held in the county towns, giving short lectures in the evenings.

Mr. McOwan opened temporary premises in St. Sidwell's street, Exeter, on October 20, for the purpose of making a display of produce during a special shopping week in this city. The visitors were largely agriculturists from the outlying districts. In conjunction with the exhibition, Mr. McOwan arranged for limelight trips to Canada, three times each evening, giving short lectures during the trips. Large quantities of literature were distributed at these meetings, and this means of getting in touch with the best class of agriculturists proved most successful, numbers having to be turned away every evening.

Owing to Mr. McOwan being very well known to newspaper men, he was able to secure extensive notices in the press, which kept Canada well before the eyes of the people.

There were three farmer delegates working in this district during the past three months, lecturing and attending at shipping agents' offices, and there are many letters on file from these agents stating what valuable assistance the delegates gave them in their work.

The Royal line steamship service was inaugurated last May, their first boat, the *Royal Edward* sailing from Avonmouth dock on the 12th of that month. These steamers were inspected on each occasion of sailing, the accommodation being excellent and the class of passengers carried of the very best type. This service has been a great advantage to the west of England people, and has aided emigration considerably.

In the past year over one thousand wall maps of the Dominion were distributed amongst schools, clubs, and workmen's institutions, and two thousand three hundred atlases were sent to school children on their personal application.

The bonus applications received at this office and sent forward to Ottawa numbered 2,824, showing an increase of 117 per cent on last year's figures.

Some ten thousand of the farmers' special circular letter have been sent out during the year.

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During the summer the following county agricultural shows were attended with most satisfactory results:—

Devonshire,
Somersetshire,
Gloucestershire

Our own stand was utilized at each show, and large quantities of literature were distributed.

The correspondence received for this year numbers 8,700, letters sent out 8,150, and 1,927 callers interviewed.

Your obedient servant,

ANDREW O'KELLY,

Canadian Government Immigration Agent.

No. 7.

REPORT OF EDWARD O'KELLY.

CANADIAN GOVERNMENT OFFICES,

44 DAWSON STREET,

DUBLIN, March 31, 1911.

The Assistant Superintendent of Emigration,
London.

SIR,—I beg to submit my fourteenth annual report, covering the period from March 31, 1910, to March 31, 1911.

I am pleased to be able to announce that the work of this office has been satisfactory, by reason of the number of emigrants with intelligence and capital, who decided to take up farming in the Dominion. Another class that should prove valuable settlers are the strong, healthy young men, inexperienced in farming, who have been placed by our employment agents with substantial farmers, at fair wages. A considerable number of those young men will have capital varying from one to five thousand dollars to enable them to start homesteading with more than the average prospect of success, when they have acquired experience in Canadian farming. In this connection I have been greatly pleased to have heard, directly or through their friends, of the interest taken in this class by the employment agents, and the good treatment they receive from their employers. That they have proved themselves the right sort is shown by the employment agents writing for more of them. The number of bright young men going to Canada, determined to succeed there in positions other than farming, shows how widespread the fame of the Dominion has become. Another class, that of capitalists, is also much interested in the great strides that our country has made in the past few years, and many of them, having sold their properties, have consulted me as to investing in land in Canada. In all such cases my invariable advice is, 'Go and make yourself familiar with the land, the people, and the laws of Canada, and I have little doubt as to the result.' One of these men spent last summer in Canada, and, on his return, called to tell me that he was so pleased with all he saw, that he was making arrangements to bring one

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hundred thousand pounds there this summer, to invest in land. On the 20th of this month another man of this class, but of smaller capital, consulted me as to settling in Canada, got my usual advice, and in a few days his brother called to inform me that he also was sailing with his brother for Canada next month, and had sent twenty-seven thousand pounds in advance to the Bank of Montreal, and, if the country came up to his expectations, would invest that sum, and considerably more, in, he thought, the Peace River district. This class of settler is sure to increase in numbers in the next few years.

I have continued my policy of spreading a knowledge of Canada amongst the people, by attending stock fairs and markets through my district, talking to the farmers and others at those gatherings, having literature distributed amongst them, and attending, with my stand of Canadian exhibits, at show fairs. My stand always excites great interest, and many discussions, as to the quality of grain exhibited, take place around it. To enable my visitors to judge better of the quality of grain, I have added to my exhibit of such in glass, specimens in small bags to give my farmer visitors a better chance for their examination.

I continue visiting the booking agents in my district, urging them to take more interest in securing settlers for Canada, and impressing on them that I am only too pleased to assist them with literature, and advice, when required. I cannot say my efforts have proved very successful, my correspondence showing me that almost all emigrants, eligible for bonus, merely buy their tickets from the agents. When this country settles down, which I expect it shortly will, the agents will have no excuse for not advertising themselves.

I have had the services of Delegate P. H. McKenzie during the month of February, and those of Mr. G. A. Aylesworth for a fortnight in March, who gave illustrated lectures on Canada, in Cork and Dublin, both of which were largely attended.

The shows at which I exhibited during the year were:—

Cork spring show, April 5 and 6.

Cork summer show, June 8 and 9.

Limerick summer show, June 21 and 22.

Waterford summer show, July 21 and 22.

Maryborough show, Queen's county, July 27.

Athy show, County Kildare, August 15.

Number.

Letters received at office. 3,628

Letters written. 4,200

Callers at office. 2,815

Atlases distributed. 2,300

Wall maps distributed. 130

Calendars distributed to booking agents, newspaper offices,
libraries and working mens' institutes. 1,500

I have to report the return of five undesirable emigrants during the year.

Your obedient servant,

EDWARD O'KELLY,

Canadian Government Agent.

No. 8.

REPORT OF JOHN WEBSTER.

CANADIAN GOVERNMENT OFFICES,

17 & 19 VICTORIA STREET,

BELFAST, March 31, 1911.

J. OBED SMITH, Esq.,

Assistant Superintendent of Emigration,
London.

SIR,—I beg to submit my report for the year ending March 31, 1911.

My work during the year has been devoted towards attending to correspondence and interviewing callers, visiting booking agents at their offices, directing them regarding government regulations, and reporting on them to the department; arranging for and delivering illustrated lectures; directing the itinerary of the travelling wagon; the planning out of work for the government delegates who were placed under my direction, and making exhibit of Canadian products at the more important agricultural fixtures.

Letters received.	3,573
Letters despatched.	7,462
Callers at office.	6,571

A large number of school maps and atlases were distributed in schools and amongst scholars respectively; the educational value of these cannot be over-estimated.

The number of claims for bonus received from shipping agents and sent forward to the department was 1,398 on 1,586 souls.

For short periods I have had the services of four delegates, Messrs. James Graham, P. H. MacKenzie, G. A. Aylesworth and Rev. T. E. Bourke. Mr. Graham only worked for a couple of weeks; the other named gentlemen each delivered a series of addresses which I trust may have served a useful purpose. A large area in my district has been covered by the delegates; Mr. Aylesworth is at present engaged with me. I have myself delivered a number of illustrated lectures during the season. I generally use my own lantern, and gas generator, and thus am able to get into country districts and reach the most desirable class for Canada.

The slides, this season, as supplied by the department, are particularly good. I have lent them out for twelve lectures. The applications for them come principally from clergymen.

Our wagon, in charge of Mr. George Robinson, and under my direction, commenced its work on April 11, and continued on the road—except for short intervals—until October 25. Its itinerary was principally in the province of Ulster, almost every village and town being visited. We arrange the journey so that, as far as possible, a fair or market is each day attended. Here the farmers congregate, and amongst them is made distribution of literature with which the wagon is supplied. Through the medium of the wagon a good work is accomplished.

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At the following agricultural shows, we made exhibition of Canadian products:—

Belfast spring show, May 25, 26 and 27.
Dungannon summer show, June 7.
Ballymena summer show, June 15.
Ballymoney summer show, June 24.
Londonderry summer show, July 6 and 7.
Clogher summer show, August 18.
Cookstown summer show, September 8.

The above are the most important fixtures in the North of Ireland, and command a great attendance of the class whom we desire to educate regarding Canada. We make good display of the exhibits provided by the department; these are examined with interest by the farmers.

It would be useful if, in addition to grasses and grains as supplied, we had a variety of material as might suggest itself to the department, illustrating the natural resources of the country. After exhibition at shows, these exhibits would be of great service in the decoration of our office windows, as our window display should be as attractive as possible. At these shows I am greatly helped by my assistant, Mr. J. Mullan.

Last fall, the landlord made changes in my office by putting in a new window, new door, and tiling approach to same; the result is a great improvement and makes the place look very smart.

I am happy to report that, as a rule, the Ulster-press is well in line with the Dominion. In the three leading papers, notably *Belfast News Letter*, *Northern Whig* and *Evening Telegraph*, frequently appear most favourable articles dealing with Canadian conditions. Our advertisement, coupled with the interesting articles as above, help materially to keep Canada well to the front.

The venture of the Canadian Pacific Company in making Belfast a port of call for some of their steamers has proved most successful. Each ship which calls secures a large number of passengers.

I endeavour to inspect the emigrants when sailing and can report most favourably on their respectable appearance. A good proportion of them secure second-class accommodation on the ships.

The Allan company, whose ships call at Londonderry, also secure a good share of emigrants. A fair proportion of our Irish emigrants make Liverpool their port of departure by some of the best ships which do not make call at an Irish port.

I am doing all I can to push the work, and trust result may be satisfactory.

Your obedient servant,

JOHN WEBSTER,

Canadian Government Immigration Agent.

No. 9.

REPORT OF M. McINTYRE.

CANADIAN GOVERNMENT OFFICES,

35-37 ST. ENÓCH SQUARE,

GLASGOW, April 3, 1911.

J. OBED SMITH, Esq.,

Assistant Superintendent of Emigration,

11-12 Charing Cross, London, S.W.

SIR,—In submitting my report for the year ending March 31, 1911, I am pleased to be able to say that the results for the past twelve months have been most gratifying.

During the months when emigration is encouraged, the numbers have been in excess of those of any previous year, and what is really more satisfactory than numbers, is the quality, each boat load, one would imagine, trying to be of a better class than its predecessor. Undoubtedly the vigorously conducted campaign of systematic literature distribution has had a good deal to do with bringing Canada prominently before the public. The distribution of atlases to schools and school children has been the means of having information on Canada placed in thousands of homes, and the system that has been employed of mailing literature direct to all available addresses of the agricultural class is now producing splendid results.

Recognizing the fact that Canada is much better with fewer numbers, provided those going are up to a certain standard, I have during the past year taken considerable pains to try and discourage from going, and placed in their way as many obstacles as possible to prevent their landing in Canada, all whom I considered, from whatever cause, undesirable citizens, this being a branch of our work here which I look upon as most important. The landing regulation as it now stands is doing splendid service in this work of selection.

Emigration during the past few months is, I find, coming from all quarters of my district. Heretofore it was not so general, some localities not contributing at all. With the use of our exhibition vans, the services of farmer delegates—several of whom I have had in my district this year and have sent out to all quarters—and by giving lectures, I have tried to touch localities hitherto not reached, which, I think, accounts for the general movement.

During the year, seventy-two steamers with passengers have been inspected, and all vessels arriving at this port with deports or rejections have been met, there having been ninety deports returned to this point, forty-five of them belonging to this district.

The letters received were 12,364 in number, those sent 10,312, and the number of interviews amounted to 9,937, bonus applications being 3,958. In addition to office interviewing, I have attended the offices of different booking agents at such times as they have notified me they had a number of prospective emigrants to whom they would like information given, the agents arranging for these people to meet me on a certain day. In this way I have interviewed quite a number.

Australia is making a big bid for emigrants in this district, and some specially good people are going there; still, so far, we have no cause to complain, although

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the number of Scotch people sailing from Great Britain to Canada for the first two calendar months of 1910, amounted to 1,442, and those to Australia amounted to 498, while during the first two calendar months of the present year 1,720 Scotch people sailed from Great Britain to Canada, and 1,303 to Australia, which is evidence that Australia is getting quite a foothold, and as a competitor for emigrants is not to be treated too lightly.

During the season I visited Canada, and the information obtained while there I found of most valuable service in my lecture work, which was carried on throughout the season.

As heretofore, I have endeavoured to bring Canada in its proper light as prominently as possible before the public in my district.

Your obedient servant,

M. McINTYRE,

Canadian Government Immigration Agent.

No. 10.

REPORT OF JOHN McLENNAN.

26 GUILD STREET,

ABERDEEN, March 31, 1911.

J. OBED SMITH, Esq.,

Assistant Superintendent of Emigration,
London.

SIR,—I have the honour to submit the report of the Aberdeen office for the year ending March 31, 1911.

The year has been a notable one in the history of emigration from this district. The splendid record made during the first three months of the calendar year 1910, which was a part of my last report, continued throughout the whole year, and has, I believe, reached a high record mark from this district. The records in the office show that from January 1 to December 31, 1910, applications were made for 3,042 bonuses, indicating the large number of desirable settlers for Canada leaving the North of Scotland. This was nearly two and a half times the number made during the calendar year 1909. During the last three months, or since January 1, this year, there have been 50 per cent more applications for bonuses than during the same months of last year. We cannot hope that this great increase over last year will continue, as I think it is largely owing to the fact that people have booked earlier in view of the heavy demand for steamship accommodation. I believe, however, that the year will make a new record surpassing even last year's splendid results. This is not only true in reference to farmers, farm and domestic servants, but it will make a new record for other classes that are leaving this country. Any one who comes in contact with the people leaving Scotland this year, must be impressed with the splendid type of the men and women who are bound for our shores. I had the privilege on Saturday last, March 25, of seeing the passengers going on board the

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new Allan Line steamer *Scotia* in Glasgow, and I have no hesitation in saying that no finer class of immigrants ever entered our Dominion than those carried by that boat.

Notwithstanding the partial failure of crops in western Canada last summer, especially by new settlers who were harvesting their first crop, the farmers who left here last year and referred to in the report of that year, as far as I have been able to learn from their correspondence to their friends here, have without exception, an abiding faith in the future of Canada, and the glowing reports that are sent home are inducing other farmers to leave. I confidently expect that we will receive this class in largely increased numbers.

I have continued during the year, the same course that I pursued in former years, lecturing in various places and visiting booking agents throughout the district. In this connection, I wish to bear testimony to the splendid service rendered by Mr. Hugh McKerracher who is in charge of the travelling van. I regard this as the most effective advertising medium that we have in this section.

While some of the larger farmers and employers of labour are opposed to our work, the general sentiment towards Canada is exceedingly favourable, and everything points to a continuation of the present exodus.

Your obedient servant.

JOHN McLENNAN,

Canadian Government Immigration Agent.

No. 11.

REPORT OF D. TREAU DE CÉLL

ANTWERP, BELGIUM. March 31, 1911.

J. OBED SMITH, Esq.,

Assistant Superintendent of Emigration,
London.

SIR,—I have the honour to submit my annual report for the fiscal year 1910-11.

The work in this office has greatly increased, but the results have been more satisfactory than ever.

The magnificent display of Canadian products at the exhibition at Brussels has, in a forcible manner, attracted the attention of every visitor of the said exhibition, and it is a certain fact that the benefits for Canada will surpass those of the Liege exhibition in 1905.

I have this year added 376 schools to the number already large (3,900), in which the atlas of Canada is used in geography lessons. I take a special interest in keeping the winter night schools for adults well supplied with every kind of our literature, and the monthly edition of *West Canada* is regularly furnished to every teacher who applies for it, either in the French or Flemish language.

The letters of Belgians or Dutch settled in Canada, are eagerly read, and give rise to a correspondence between the writer and parties at home, causing in general the best of results.

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My intercourse with different teachers is always most cordial, and I have been admirably assisted by many in giving lectures on Canada in their schools, on Sundays for the general public and on weekdays for the scholars. I always provide limelight views and a synopsis of the lecture.

By teachers and other parties 22 lectures have been given. I gave fifteen lectures with lantern views in the most important centres, according to correspondence received, and I held a large number of meetings for the benefit of intending colonists.

The first quarter of the calendar year, 1911, has been a record for the fiscal year; the first party composed of about 50 Belgians sailed on February 22, and the second containing 149 Belgians on March 8; these sailings were by C.P.R. direct line from Antwerp, while quite as large a number left by the different English lines, and others, for want of room, by the Belgian and American lines via New York.

This early emigration is noticeable for the number of families, who intend to settle on their own account as soon as familiar with the work, the habits and customs of the country and more so for the financial position of most of them, which is generally excellent. Some of these people possessed a capital of from \$4,000 to \$6,000, while the most of them were in possession of a sum of \$1,000 to \$2,000.

During the year 6,530 letters were received, 5,660 were written, 1,400 visitors called at the office for information, while I interviewed not less than 1,600 persons, after lectures and meetings, at the most central points; 376 parcels of atlases and as many wall maps were distributed to teachers; 2,700 parcels of pamphlets were sent by mail, and 1,285 distributed at the office.

The Dutch emigration has also been very extensive and increases year by year in accordance with the number of contented colonists in communication with their friends, either through private correspondence or by means of the Flemish edition of *West Canada*.

Your obedient servant,

D. TREAU DE CÉLI,

Canadian Information Agent.

No. 12.

REPORT OF PAUL WIALARD.

CANADIAN GOVERNMENT AGENCY,

10 RUE DE ROME,

PARIS, April 1, 1911.

To the Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to present to you my report for the fiscal year terminating March 31, last.

We have done our utmost, as in the past, to make Canada more and more known, from an economic, geographical and historical point of view, being certain that the relations between France and our country cannot but gain from this diffusion of knowledge. We have done our best to give the fullest information about the resources of Canada to all inquirers.

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Our correspondence slightly exceeds the number reached last year, *i.e.* 21,555 instead of 21,500; the visits which have been made to us by persons desirous of obtaining verbal information number 3,133 instead of 2,260, an increase of 873 visitors.

We have been able to prove during this year that Canada is every day better appreciated and that many French people think of going there, if not for the purpose of settling at least to take personal note of the resources of the country. The number of those that thus left for Canada will reach, I do not doubt, this year, a much higher figure than that of last year.

The Allan line, which gives a regular service from France to Canada, continues to give us entire satisfaction for the transportation of passengers taking this route to our country.

My colleagues, Messrs. Foursin and Belanger, give their best efforts to assist me in my task.

Your obedient servant.

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PAUL WIALARD.

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OPERATIONS IN THE UNITED STATES.

REPORT OF THE INSPECTOR OF UNITED STATES AGENCIES AND
PRESS AGENT.

W. D. SCOTT, Esq.,
Superintendent of Immigration,
Ottawa.

SIR,—In submitting my annual report for the fiscal year ending March, 1911, it is with a great degree of satisfaction that I look back over the result of the work of the agencies under my charge during that time. There has been a decidedly increasing interest throughout all the territory in which we are operating, as is evident from the increase shown in the number who have gone to Canada during the year as compared with previous years. Not only has the number of settlers increased, but the record of the means and the value of effects taken by these people shows that individually it was much larger than in past seasons. This does not mean that the immigration from the United States during the past year has been of a higher class than previously. Those who made the venture on to the homesteads when they had "to tread the wilderness" (to them), and to-day have become prosperous after undergoing the hardships and withstanding the privations inseparable from pioneering in any country, are people deserving of the greatest amount of credit. Their progress has been influential and beneficial in our work in the States. Their successes were made known in letters to their friends, and the tone of cheerfulness evident throughout the contents was helpful. Their relatives and friends read, and considerable influence was spread in this way. The relation of their experience was a splendid endorsement of the work and of the truthfulness of the statements of our agents. The settler of to-day is not the pioneer that his former neighbour was, but he may possibly take with him more capital; in fact this is necessary if he wishes to keep himself abreast of the advancement of the man who went to any of the provinces—Manitoba, Saskatchewan or Alberta—a few years ago. There is not to-day the vast open area of homestead lands for inspection; there are now no \$5 or \$8 an acre lands and the new settler has to pay considerably increased prices. The settler of a few years ago is the man to whom much credit should be given; the settler of to-day is to be credited with good sense and sound judgment in taking advantage of a situation that still makes it reasonably easy for him to master.

Notwithstanding the growing scarcity in the prairie area and the increase in the price of land owned by railways and private land companies, it is pleasing to be able to announce that about 125,000 people have gone to Canada from the United States during the past year, or an increase of 25 per cent over the previous year. The present indications are that the incoming year will show better results even than the past. As previously indicated, the greater number of those who go to Canada this year for the purpose of settling will be possessed of the means with which to purchase, and at the reasonable prices that land are still offered at as compared with the prices of similar lands south of the boundary, which yield no more abundant or profitable crops, there are still excellent opportunities. It would be unwise, however, to overlook the fact that the price of farm land is increasing, and one might reasonably assume, were it not for the fact

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that they are still much below their value, there might be fewer lands occupied. And then, too, it must be considered that the drought in certain sections last season, and the exaggerated statements sent broadcast concerning it, have had more influence than it was first thought they would have. On the other hand, however, the country's resources are becoming more widely known, and no mean factor to the assistance of our regular work in bringing this about has been the widespread publicity given to them by the newspaper accounts when discussing reciprocity. The newspapers of the United States, large and small, have published columns concerning it, and there has arisen from this source alone a mass of inquiring correspondence throughout the middle western states in which we are chiefly operating. The thinking farmer has discounted the drought stories. He knows that it was not confined to a few areas in Canada, but it spread over the entire central west of the United States.

The farmer with means, the man who is able to dispose of his farm in Iowa, Illinois, Wisconsin, Nebraska, Missouri or any of the western states, is satisfied that western Canada has passed the experimental stage in the matter of agricultural existence, and he is willing to embark his means and his possessions in securing purchasable lands. There is, therefore, now as much time taken up by our agents in answering inquiries of this character as there has been in the past in answering the numerous questions of the probable homesteader. While the homesteading class may be decreasing, the purchasing class is increasing, and thus we will continue to keep up the interest and possibly increase the numbers.

There were reports that during the past year a great many had returned to the United States from Canada. I think one report gave it that 15,000 had returned from the prairie provinces. The author of this libel hoped by its circulation to be able to divert attention from Canada into channels in which he was interested. By the audacity of the interested scribe, it was easy for the reader to recognize his craft, but at the same time it did some harm and gave our agents considerable work in helping to defeat the ends that were intended to be brought about. All told there were not 300 persons of the class described who returned to the United States, and I really do not think the percentage was greater than in previous years and so small that otherwise but little attention was paid to it. It will be somewhat strange, in view of the fact that so many had gone from the United States to Canada, that there might not be some who, through homesickness or inability to meet conditions that faced them, did not return, but it frequently occurs that 'once back home' and looking about to begin life anew there is a regret at having left Canada. It might be interesting to refer to one or two instances brought to my notice during an investigation into the reports that had been circulated.

From one of the western coast states a farmer and his family had gone to Alberta and lived there two or three years and then decided to return. He sold his Alberta farm and with his family and entire outfit of horses and effects, a full carload, returned to his old home, spending considerable time and money in looking for a location in the country he had lived in so many years before, and to which his thoughts had often turned whilst earning his patent for his Alberta homestead. He had a homesick feeling and a longing to return, but when he did so it was not the same; the crops were not better than the Alberta crops, the price of land was considerably higher than when he left, the climate was not the climate he had thought it was, and in three months' time the same carload of effects cleared the Canadian customs at Kingsgate, he and his family secured the low one-way settlers' rate, and he is now satisfied and contented in Alberta, is doing well, and is prepared to give advice from his well earned experience to any who may think of returning.

Then there is the case of a street car conductor. This man was born and raised on a farm in one of the northern tier of states, but did what many another farmer's

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son has done--tired of what he considered the drudgery of the farm and made for the city, securing a position as a street car conductor. But the breath of the farm, 'the smell of the soil' remains with these sons of the farm, and it remained with him. He sought Canadian government literature describing western Canada, telling of its prairie farms, of its excellent crops of grain grown at small cost; he heard of the splendid cattle that fattened upon the prairie grasses and with little labour prepared for market. He talked with farmers of western Canada on their visits to their friends in the States between seasons. They had nothing else to do. Having the means to make the trip and tell about the Canadian west, they did it. The farm life loomed large again to him and its lure attracted him back. He went to western Canada, and with his young city-bred wife took up a homestead. In three years' time he proved up, secured his patent and pocketed the \$3,000 paid him for his 160 acres by a neighbour. His wife, unused to country life, longed again for the city. But, six months afterwards, I saw him and his wife in our St. Paul office, arranging for their return to Canada. He had a carload of effects, said he had enough of city life and was going 'back home.' He wanted the quickest passenger train to Saskatchewan for his wife and child, and the fastest freight for himself and his carload of effects. These are not solitary cases, others could be given. When instances of this kind arise they inspire the agent with increased zeal in his work, and they often result in having others follow. So in point of fact there is very little to dread in the return of some few of those who came back.

The growing scarcity of homesteads in the prairie area has made it necessary in the past year for our agents, with the assistance of our literature, to establish a propaganda of education, taking as a subject the park areas lying to the north. There have been before the attention of the possible settler for some years the wide open prairies which are easy of cultivation. The park districts were not overlooked. They were constantly spoken of, but the advantages that they offered did not loom as large in the eye of the homesteading class as they will in the future. They afford opportunity for high class farming, stock raising and dairying, as well as the growing of grain, but this is not the place to dwell at any length upon the splendid chances that will accompany homesteading in these districts. Sufficient to say that considerable interest is now being aroused, and while it may be difficult to work up as great an interest as was secured while dealing with the wide open prairie areas, I anticipate in a short time there will be quite as large a demand for these lands as there ever was for the open prairie portion. The fact that there are no railway or other lands there for sale, the entire tract being open for homesteading, leaves the area still open for homesteading in western Canada sufficiently large to encourage the work of securing homesteaders for a number of years to come. The agents are alive to the fact that their work will now be somewhat harder, and will require even greater activity during the coming summer than in the past. As many of them as can possibly be spared from local work will visit these parts and become personally acquainted with the conditions. The railroads that are penetrating these districts will make it an easy matter for the homesteader to reach them.

During the past year there has been considerable interest in the Peace River district. There are but few data upon which to give advice concerning this territory, but notwithstanding this it is found that there are many anxious to go there. They are prepared and willing to undergo the hardships that would seem unavoidable in 'trekking' to a country that is so remote as this seems to be at present, but of which they have had excellent reports.

Based on the experience of fourteen years in this work, my opinion is that the best immigration work is secured by filling up the country already explored and the worth of which is known. In this way, the frontiersman of to-day becomes the 'old

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timer' of to-morrow. There is still much excellent country to settle between the 49th and 60th parallels, and nothing is lost either to settler or country by doing the best to fill it up first.

During the past year we conducted an aggressive campaign in the matter of placing exhibits at the most important fairs and exhibitions in the territory in the United States in which we are working. We find that this is an excellent method of securing publicity and brings about splendid results. Very good advertising was obtained in Columbus, Ohio, a few weeks ago, when a silver trophy valued at \$1,500, given by the state of Colorado was secured by Mr. Hill, of Lloydminster, for the best peck of oats, thus beating the world. A peck of wheat raised at Prince Albert also secured the first prize. As much publicity as possible was given to the facts.

We have continued advertising in the same manner as before, which consists in the securing of space in the advertising columns of the farm and country weeklies and also placing reading notices from time to time. The work of the agents throughout the territory has been satisfactory in every way. Our literature deals with western Canada as a whole, including British Columbia. It is carefully revised every few months, and no old literature is allowed to be placed in the hands of the public.

Your obedient servant,

W. J. WHITE,

Inspector of United States Agencies.

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OPERATIONS IN WESTERN CANADA.

REPORT OF THE COMMISSIONER OF IMMIGRATION.

WINNIPEG, MANITOBA, May 8, 1911.

The Superintendent of Immigration,
Ottawa.

SIR,—I beg to submit the report of the Winnipeg office, and the western offices reporting thereto, for the fiscal year, ending March 31, 1911.

The stream of immigration not only continues with unabated force, but shows a marked increase over last year. There are two or three features of it deserving brief attention. In the first place, the great increase of British immigrants this year is worthy of special notice. The figures of British immigration to western Canada show a very considerable increase over last year, and it is perhaps worthy of mention that between March 1 and September 1, 1910, 65,000 British immigrants detrained at Winnipeg.

There is also a very appreciable increase in the amount of individual wealth brought by the overseas settlers, both British and European. This is particularly noticeable in the case of British settlers. This new-comer, by the bye, has a pretty general objection to be described as an 'immigrant,' attributing in some way an idea of inferiority to the term. He calls himself a 'settler.' The term would appear to be an excellent one, and is becoming much more commonly used in the west than that of immigrant. These new settlers have a considerable amount of individual wealth, and for the most part are well able to take care of themselves for several months if need be, and pending their obtaining suitable employment.

Nothing strikes the observer of the immigration movement so much as the wonderful absorbing power of the country. Though new settlers were reaching Winnipeg last year during several months at the rate of 1,000 persons per day, they passed out into the country and into the towns and cities, and became so quickly absorbed in the community, that it almost seemed as if their appearance was a myth, or as if they had passed away back to the source from whence they came. This absorbing power continues in all directions, and, wherever the new settler is capable of using his head and his hands, there is no question of his opportunities, and if he has only a fair measure of adaptability, he soon becomes a settled part of the district in which he lives.

QUALITY OF SETTLERS.

Even the most casual observer of the immigration movement cannot but be struck forcibly by the obvious improvement in the physique and general character of the immigrants who are coming to Canada this year. This is manifest not only in the personal appearance of the immigrants, but in the fact that an increasing proportion of them are country bred people, with agricultural instincts and inclinations, and a general desire to go upon the land. I have been very much struck with the greatly improved quality of the immigration from Great Britain and Ireland, and more particularly from England. This makes itself manifest in other ways besides the appearance of the immigrants. For instance, last year and this spring so far,

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there has never been the slightest trouble in clearing out the trainloads of immigrants as they arrive. The demand for agricultural labour provides the opportunity, and the great mass of the British immigrants seize the occasion to work on the land without delay. Again, the improved quality is seen in the infrequency of appeals for public help, either from the charities of this city, or from the department; whereas, some years ago considerable sums had to be set apart for the maintenance of the unsuitable and the destitute in the city of Winnipeg. Last year this phase of our work was practically entirely eliminated, and from the quality of the immigrants arriving now, indications point to an almost total absence of appeals for help from any other cause than sickness or misfortune.

While the improved quality and increasing quantity of immigration from Great Britain is extremely gratifying, it is not less so than the improved quality of those who are coming in from other countries in Europe, especially from France, Belgium, Switzerland, Germany and the Scandinavian countries generally. These people are an unusually good class, and accept work at agriculture with great readiness.

THE SETTLERS FROM THE UNITED STATES.

The volume of immigration from the United States has increased to a great extent, and it is safe to say that never in the history of the movement from across the boundary line have the numbers and quality of the immigrants been anything like equal to what they have been during the past year. These American settlers bring with them good physique, a long and practical knowledge of western agriculture particularly adapted to our conditions, and, in addition, they bring with them not only a generous supply of stock and implements, but, in most cases, a good round sum in cash.

CLASSES TAKING UP LAND.

The class of settlers taking up free land is superior to former years; those from the British Isles and the United States being as a rule able, financially, to start farming on a good scale, and also increase their holdings by purchasing from surrounding owners.

Homeseekers are apparently not leaving a stone unturned in their efforts to secure land in the principal districts, and delinquent homesteaders are, therefor, promptly looked after through the cancellation process.

The unprecedented advance in land values last spring gave an impetus to the already eager inquiry for free land, and with the usual activity on the part of the railway companies to rush out extensions, the aspect for land seekers was never more bright.

VAST AREA STILL AVAILABLE.

There is still a vast area of available homestead land, most of which would be desirable for grain growing and mixed farming. Within the pre-emption area those who are now getting their patent for the first homestead are very glad of the opportunity to secure more land, even if not of the best class, at the rate of \$3 per acre; of course subject to homestead duties.

The partial crop failure last season has taught the farmers that there must be better cultivation of the soil if they wish to ensure a crop, and, therefore, a large percentage of the farmers did considerable ploughing and working on the land last fall. There is also a tremendous increase in new land brought under cultivation last year, which should show a corresponding increase in the production this season.

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INCREASED MIXED FARMING.

The mixed farming district of Northern Alberta received its full share of immigration during the year, and the class of settlers coming in were above the average, being particularly well to do farmers from the United States, who brought with them the latest improved machinery, good stock, a fair supply of ready money, and, what is of more importance than all, a knowledge of the requirements of farming in the west. Many of these settlers, having grown up families of boys, and finding the prices of lands where they had gained a competency prohibitive, moved to this country where they could obtain free homesteads, and cheap lands, and express their entire satisfaction with the change. Settlers came from all civilized parts of the world, the majority coming from the United States of America, British and Canadians being about equal.

SETTLEMENT IN NORTHERN AREAS.

The past year has been an exceedingly busy one, on account of the number of immigrants settling in the northern Saskatchewan district. These immigrants are principally from Great Britain and the northern states, and are mostly from agricultural districts in the respective countries they have come from, and being thoroughly acquainted with agriculture, they have proven themselves to be of the very best class of settlers obtainable. They have settled principally in the territory north of the North Saskatchewan river on the new line of railway from north Battleford in a northwesterly direction, which line it is proposed to extend to Athabaska Landing.

During the past season there have been fifty new townships subdivided and opened for entry in the Battleford district. This land is of a class very suitable for mixed farming, and a great many homesteaders have availed themselves of the privilege of securing entries in this new territory, and several have purchased and located South African scrip in the immediate vicinity of their homesteads.

All over the northerly part of the province of Saskatchewan the crops during the past season were particularly good, and yields greater than the average in many instances have been reported. The quality of the grain was likewise very good, most of the wheat grading a two northern, with a very fair proportion grading one northern. The oat crop was good, and the sample was excellent, Messrs. J. C. Hill & Son, of Lloydminster, securing the world's prize for oats, which oats were grown in the Battleford district.

A great many new settlers have gone into the new country between Onion Lake and Saddle lake during the past year. There have been no cases of destitution reported for the district, and only in one or two individual instances has an application for an advance of seed grain been asked for, and in each of those cases it has been through the losses of property by fire which has compelled the settler to ask for the assistance.

The payments on seed grain and provision issue previously made, have been very large during the past year, and in several cases these liens have been paid by the settler before maturity. These advances as made by the government have been very beneficial to the settler, and have been the means of giving them independent assistance whereby they may perform their farming operations to success.

IN SOUTHERN ALBERTA.

The immigrants who settled in southern Alberta were mainly native Americans of British stock, judging by their names, or Germans or Scandinavians by descent. The season's immigration about completed the settlement of the vacant free lands

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lying east of the A. R. & I. railway, and of range 16 to the provincial boundary, or, rather, to the closed lease country. A vast district, vacant three years ago, is now occupied by homesteaders, largely attracted to the region by its available pre-emptions, as well as its good soil.

It is unnecessary, just yet, to speak of the condition of these homesteaders, as they all, more or less, suffered by last year's drought. But they are a hopeful and energetic class, and not at all depressed over their prospects, especially owing to the abundant precipitation all winter, and to the snow storms which began on March 29, and have been depositing soft snow all over the region during the early spring.

The timely assistance of the government in the matter of seed grain is highly appreciated, and will enable a large number of homesteaders to put in a crop this spring, whose land would otherwise lie idle. This prompt expenditure, to judge by present indications, will all be recouped to government within the present year, out of the proceeds of a single harvest.

LAST YEAR A GOOD AVERAGE CROP.

In the vast area comprised by the prairie provinces, and in the ever increasing acreage brought under cultivation in these provinces, it is hardly possible to expect the same conditions, and especially the same climatic conditions, to prevail in all parts of the country. The day when there can be a total crop failure in western Canada may be said to have passed away entirely; consequently, while it is possible to have shortages in crop of a serious enough character in itself in various parts of the country, yet the country, as a whole, may be fairly prosperous, and the crop a good average. This situation might fairly describe the conditions last year. While there was a good average crop, and while the climatic and other farming conditions were normal, at the same time, there was a shortage of crop from lack of precipitation, and perhaps to some extent from lack of experience and proper methods of cultivation in certain parts of southern Saskatchewan and southern Alberta. Even in these districts, however, where the farmer had spent some years in the country and had adapted himself to its peculiar conditions, fairly good crops resulted. In this part, however, during the last two years there has been a very considerable volume of new settlement, and the consequence was that the dry areas of these two sections last year found the new settler somewhat unprepared, and, as a result, it became necessary for the department to give special attention to the needs of the new-comers in southern Saskatchewan and southern Alberta. A seed grain distribution took place in these areas, to which reference will be made in a special report on the subject. Happily, no serious suffering took place. Most of these homesteaders were in this position: They had money enough to provide themselves with food and fuel during the winter, but this would make them short of cash to purchase seed grain in the spring. The department decided that in the interests of the settler himself, as well as in the increased area of cultivation this spring, it would be well for the government to look after the settler with reference to his seed grain for this year's crop, leaving him, in the ordinary course, to provide for himself and family out of his own resources. This was done very satisfactorily. Very few, comparatively, required both provisions and seed grain, and it is a matter of gratification to be able to say that in all this vast area of new settlement, with new settlers largely unaccustomed to our conditions, not a single fatality occurred, either from lack of food or fuel.

The department pursued a constant and vigilant inquiry amongst the new settlers with a view to discovering any and every case of suffering, and of affording immediate relief. This difficult work was done with marked success, and I take this opportunity of expressing to Commissioner Perry and the officers and men of

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the Royal North West Mounted Police, my cordial thanks for the prompt and effective assistance given us at all stages of our work in this important undertaking, and I feel that I ought to say that a great measure of success of our efforts to ameliorate the condition of the new settler through the winter months was due to the loyal co-operation of the officers and men of this very valuable force.

DISTRIBUTION OF FARM LABOUR.

The Labour Bureau of the Immigration Hall has been unusually busy and has done better work than ever before. During the year ending March 31 the number of applications received for farm help for farmers in Manitoba, Saskatchewan and Alberta, numbered 20,101, and the number which were satisfactorily placed in these three provinces total 10,089; or, as you will see, slightly over 50 per cent of the total number of applications received were filled. It is perhaps fair to say that neither the applications for farm help, nor the figures of those applications filled, adequately represent the true condition of the labour situation at the hall, inasmuch as a very large number of farmers and delegates from farming communities pay personal visits to the hall and come in contact with the new-comers and take thousands of them away during the season, and place them with farmers in their respective neighbourhoods. These, of course, are not recorded, and are not included in the figures given above.

WAGES.

The wages during the past year have run from \$35 to \$40 with board and lodging for experienced men, and from \$15 to \$20 with board and lodging for inexperienced men. In many cases, where the experienced man is a thoroughly up-to-date farm labourer, \$15 have been offered and accepted. The average, however, runs from \$35 to \$40 per month, and the season from seven to eight months of steady employment.

I notice with pleasure that every year the number of farmers who find employment for their hands during the winter months increases. I have on former occasions expressed the opinion that the farmer has the solution of his own labour difficulty in his own hands, and that so soon as he recognizes that it is to his own interest, not only to employ the farm help for the whole year, but to provide accommodation for the family of the hired help, that his workmen may settle down in his neighbourhood, so in proportion will the labour difficulty be solved. Speaking generally, however, the labour difficulty must remain with us for many years in view of the great area of new land brought under cultivation each succeeding year.

MARRIED COUPLES AND DOMESTICS.

Married couples have been in great demand throughout the year. We have had altogether 628 applications for married couples, of which 241, or 40 per cent, have been satisfactorily filled. These experienced couples were settled at the rate of from \$300 to \$450 per annum with board and lodgings.

Sixty-three applications for housekeepers were received and 19 of these filled.

The domestic servant problem still continues one of our great difficulties. During last year applications were received for 715 servant girls, and, notwithstanding the great immigration into this country, only 84 of these vacancies, or 12 per cent, were filled from this office.

I regret very much that this condition should continue, particularly as I am aware that both in England, Ireland and Scotland there is a great number of young women, specially trained, and capable of filling these positions, who ought to be brought here, if some organization were perfected to deal with the question in a

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businesslike way. There are, I know, two or three organizations working along independent lines and bringing servant girls to this country. What is wanted, however, is a strong, influential, and energetic central organization grappling with the servant girl problem as one of the problems of the west, and working through its proper agencies amongst the best class of material in the old country, and until this is done I am afraid our supply of domestics will continue to be utterly inadequate.

IMMIGRATION HALLS.

The government immigration halls in Winnipeg and the west continue to be the favourite stopping places for a very large proportion of all immigrants coming into the country. During last year 31,999 immigrants stopped at No. 1 Immigration Hall, Winnipeg, as compared with 20,874 in the previous year. During May, 1910, 6,950 persons occupied the hall, as compared with 3,038 in the same month in the preceding year.

During the year new immigration halls have been opened at Tisdale, Gravelbourg and Kerrobert, Saskatchewan; Emerson, Manitoba; and Castor, Entwistle and Edson, Alberta.

INSPECTION OF IMMIGRANTS.

The work of inspecting the immigrants coming into the country across the boundary line is conducted with energy and with every reasonable care. At several points, where immigration is largest, it has been found necessary to appoint medical officers, in order to protect the public health, and ensure the best quality of newcomers.

I regret that up till now the railway companies have not completed the erection of the detention houses necessary for the proper and safe custody of undesirables rejected at the boundary. I understand, however, that they are preparing plans and have given a promise that the work of erecting these detention houses will be completed in the early summer. This is as it should be, because it is impossible to properly safeguard the boundary line if no precautions are taken to keep in safe custody until they are returned to their own country, persons who are declared ineligible to enter Canada.

I have to express my warm appreciation of the loyal and cordial co-operation of all the officers engaged in the immigration service in the west, who are under the direction of this office. I believe they recognize fully the great importance of the service in which they are engaged, and I have every reason to repose the greatest confidence in their integrity, their intelligence, and their honest desire to meet and greet the new settler and assist and encourage him in his settlement under the most favourable conditions.

Your obedient servant,

J. BRUCE WALKER,

Commissioner.

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JUVENILE IMMIGRATION.

REPORT OF G. BOGUE SMART, CHIEF INSPECTOR OF BRITISH IMMIGRANT CHILDREN AND RECEIVING HOMES.

DEPARTMENT OF THE INTERIOR,

OTTAWA, March, 31, 1911.

The Superintendent of Immigration,
Ottawa.

SIR,—It affords me great pleasure in presenting my twelfth annual report to state that the various duties of this branch of the service, during the fiscal year just terminated, have been thoroughly and satisfactorily performed.

Each succeeding year the importance and utility of juvenile immigration becomes more manifest since our Canadian farmers, especially in the older provinces, depend very largely on the help rendered to them by the youthful immigrants, in consequence of which the demand, as has been the case in former years, continues largely in excess of the supply. Thus the wisdom of this kind of immigration is demonstrated, not alone in the advantage accruing to the child in being thus early in life Canadianized, if I may use the expression, before his habits and ideas had become permanently fixed, but the advantage to the Canadian agricultural and industrial classes of the Dominion who thus obtain assistance in their work at a modicum of cost.

Handicapped by extreme poverty with its consequent dangers, as were the majority of these children, who are now happily settled in our Dominion, this fact has not militated against their development into a useful and industrious citizenship. Coming at an early age their misfortunes of birth are soon forgotten by them and the stigma of poverty is completely removed on their arrival on our shores, thus enabling them to develop a spirit of self respect which is a chief factor in the building up of a character, at once respectable and useful to the country of which they are to become citizens. However, a careful selection of these youthful immigrants is most essential, that the present standard may be maintained.

A writer in a Canadian magazine referring to this form of immigration stated in part: 'These child immigrants come here at a teachable age, they readily adapt themselves to the conditions of life in this country, and as most of them are placed with farmers for a number of years they become accustomed to rural life and eventually follow agricultural pursuits. Child immigrants of this class are most desirable. The question of bringing in paupers cannot be raised in connection with this immigration in view of the fact that these children come under the auspices of responsible institutions in which they have been trained and that the demand for such children, on the part of the farmers of Canada, is enormous.' The writer continued, 'the demand for these boys and girls is eight times greater than the supply. There is also to be considered the service this work is rendering to the empire. Taken from the congested life of the old country these children are given wider opportunity, and they are placed in a field where their labour is required to assist in developing a new country and in building up one of the outlying portions of the empire.'

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Visits of inspection, in pursuance of the duties of my office, have been paid at the various receiving and distributing branches during the past fiscal year. On each occasion I have been pleased to observe on the part of those in charge of nearly all of these centres of activity, a sympathetic and untiring interest and consideration for the welfare and success of their wards which may be taken as a reasonable guarantee that the rights of the children are safeguarded on this side of the Atlantic as well as in the English homes.

The time has passed when one need entertain any doubt as to the healthy condition of our junior immigrant. As far as my personal experience during the past year is concerned, I may say that these children have been exceedingly free from diseases or other ailments than those incidental to childhood. On the contrary the result of my observation has been that those who were not of robust frame on being placed in our agricultural districts have, after a remarkably brief residence, developed a degree of health and vigor most satisfactory. Many of the lads themselves have drawn my attention to this fact. I recall a very recent instance, that of a lad of sixteen years of age from the Hackney Union School, who after expressing his fondness for farm life and work added, 'The longer I am on the land the stronger and healthier I am becoming.'

From the individual reports which I have recently been perusing I find that in a total of one thousand seven hundred and seven children reported upon as to health, one thousand six hundred and fifty-eight were in the enjoyment of excellent health. Thirty-seven were in good or fair health and twelve were reported as in poor or unsatisfactory health. These statistics are equally encouraging to both the home government and that of Canada.

In this connection I may add that in the month of June last I had the privilege of visiting the port of Quebec for the purpose of observing the nature and mode of conducting the examination to which the children are subjected by the medical officers of the Department of the Interior before being permitted to proceed to their destination.

The party on this occasion happened to be a detachment from Dr. Barnardo's home in London.

Although some thirteen days 'en voyage,' the children presented a most creditable appearance, and were a very nice batch of boys and girls. Their ages averaged 10 or 11 years. The children were separated from the adult immigrants on reaching the immigration hall, and for clearer observation passed singly through a narrow passage, at the end of which the medical officers of the department were stationed. Each child was stopped and submitted to a searching examination—first as to the condition of its eyes, scalp, skin and general physique. General questions were put to each child with a view to testing its intelligence before it was allowed to pass on and receive the stamp of eligibility. In the case of three lads, the medical officers deferred their judgment until the others had been passed, and after a consultation by the doctors they were also permitted to proceed.

Being particularly interested, I followed the examination with close attention, and was much impressed by the searching character and value of the scrutiny, and it seemed to me that it would be quite impossible for a child possessing physical or mental infirmities to successfully run the gauntlet.

I wish also to say that the kind disposition of the immigration officials of all grades, not only to the children but also to the adults coming before them was most gratifying. I believe that the officials of this port charged with such great responsibilities, possess a thorough understanding of their obligations and that a spirit of humanity and sympathy guides them in the performance of their duties to all classes alike.

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It is a most gratifying fact that few children were returned to Great Britain owing to personal disqualification. The Department of the Interior entirely approves of the legislation of the different provincial governments, extending the term of guardianship of the children to eighteen years, thus affording them protection at a period of their young lives when such protection and oversight are most necessary.

A personal inspection of each poor law child under the age of seventeen years is an undertaking of no small magnitude. In nearly every parish, township and county in the Dominion the juvenile immigrant may be found. Owing to this wide distribution it is apparent that the work of inspection becomes each year more onerous.

I have personally travelled during the twelve months ended December 31, twenty-two thousand three hundred and seventy-two miles by railroad and two thousand and fifty-six miles by horse, and my total inspection embraced one thousand and fifty-six children.

It affords me pleasure to state that again during the past year there has been a very marked improvement in the regularity of the attendance at school of the old country boy and girl. There have been, it is true, some flagrant cases of neglect in this regard brought to my notice during my travels throughout the country districts. It is unnecessary, however, to state that such nonfulfilment of contract on the part of employers was promptly brought to the notice of the society, and I am pleased to add that steps were taken to prevent the continuation of such neglect.

Strict conformity to the education laws of the provinces cannot be too strongly impressed upon those persons receiving children under the age of 14 years, which is commonly called 'the school age' in Canada.

Under the provisions of the compulsory school law of the province of Ontario, 'every society, agent or person having the custody of any child heretofore or hereafter brought into the province of Ontario shall be entitled to send such child to the public or separate school of the municipality or school section in which the child resides in the same manner as the child of any ratepayer in the municipality or school section, and every such society, agent or person having custody of any such child shall be subject to the Act Respecting Truancy and Compulsory Attendance.'

Some cases of ill-treatment, happily few in number, have been brought to my notice during the year. This, unfortunately, is inevitable where such a large number of juveniles scattered throughout the Dominion are concerned. In nearly every case prosecutions have been followed by merited punishment. In this connection the sympathetic interest and determination on the part of the Canadian people not to tolerate acts of injustice towards defenceless young subjects were manifest.

In the month of April, indentures and apprenticeships expire, consequently many of these young farm labourers change situations. For boys who have passed the school attendance period, yearly indentures are more advantageous than those extending over a term of two or three years, in that it gives them an increased wage, proportionate to their advancement in efficiency and knowledge of farm work. Experience and close observation have convinced me that after a reasonable period of service a change of employer is more often beneficial than otherwise. The child thereby varies his experience, and his knowledge of life and work is expanded.

Hasty judgment must not be passed on a boy or girl simply because he or she has not been a success in either their first or second placings. The fact must be borne in mind that one is dealing with children not adults. In the training of the young apprentice, as I have often pointed out to our farmers, patience and consideration are most essential.

It has frequently occurred to me, in the course of visits of inspection during the year, that a greater degree of efficiency is expected from the old country boy or girl than is quite reasonable, considering their inexperience. Some farmers I have found

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exceedingly difficult to satisfy. However, after a few months' acquaintance with the names of the various implements, &c., the average boy manifests his utility and becomes very useful. In the case of one thousand six hundred and sixty-two children reported upon as 'to suitability for situations, it was found, on the report of the employers, that one thousand three hundred and eighty were giving very good satisfaction, two hundred and sixteen good or fair satisfaction, while sixty-six,* only, were reported upon as generally unsuitable.

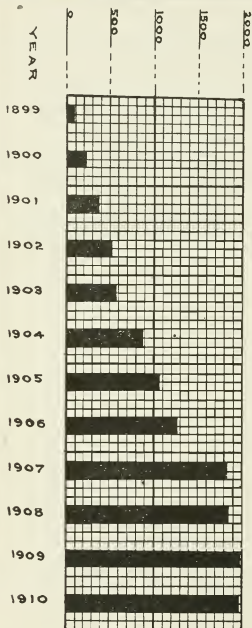
In the exercise of their functions my assistants personally investigate and inquire, amongst other matters, into the general condition of each child, with particular regard to their home surroundings, daily routine of work, church, Sunday school and public school attendance, their personal appearance and clothing, treatment and behaviour. No notice, whatever, is given of the coming of the inspector and therefore no time for preparation is afforded and the children are seen in the course of their daily routine.

A careful supervision is most essential; it is in fact the keynote to success as it aims not only at the immediate protection of the child by conserving its temporal and moral well-being, but creates a bond of union between child and guardian which will, it is hoped, prove a powerful factor in influencing the lives of the former for good.

The government of Canada promises no peculiar privileges on behalf of the juvenile immigrant, save that when he comes to the Dominion of Canada he will undoubtedly be afforded the utmost possible justice, fair-play and liberality.

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NUMBER OF CHILDREN FROM POOR LAW SCHOOLS IN GREAT BRITAIN INSPECTED AND REPORTED UPON ANNUALLY SINCE THE YEAR 1899



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Inspector R. W. Hillyard says in his report for the year:—

‘Another year of government inspection of union orphan children has been completed and ample opportunity afforded to estimate the value of the work done. Extensive travelling by train and horse throughout many of the counties of the provinces of Ontario and Quebec demonstrates that a very large proportion of the children are comfortably settled in homes that provide in a large measure the necessary comforts of life. Ample food, warm clothing and comfortable sleeping apartments were much in evidence while in not a few cases the moral and religious influences are all that could be desired.

‘Children of tender years attending school are doing fairly well. We have the authority of the teachers for saying that in not a few cases the old country child is found among the highest ranks of their classes.

‘The general health of the children is marvelously good; very few were found to be weakly or sickly.

‘It is very rarely that we have to complain of harsh treatment on the part of employers. The fact that the homes who place the children have made public examples of those who have treated the children badly has had a deterrent effect upon any who may have been disposed to transgress in this particular.

‘Those of us who are familiar with the subject of child immigration to Canada know of many triumphs attendant upon their unaided efforts for success. Every year is adding to the list of those who are making a success of life in this country. The ever growing demand for farm hands and domestic servants is being partly supplied from this helpful source. Quite a few go into mercantile life; some are aiming at higher education and attainments while the greater number are ambitious to possess their own farms. Notably among the latter class I may be permitted to mention the case of a boy with whom I am well acquainted. When a little lad he was placed with a friend of mine on an Ontario farm. From the first he manifested a desire to do right and soon established a reputation for truthfulness and integrity. He was greatly respected by all who knew him. After creditably completing his apprenticeship he removed to western Canada where his high character soon won him friends. His industriousness and thrift were crowned with success. As the result of judicious investments and practical farming he has acquired a fortune amounting in the neighbourhood of \$100,000, so that now with wife and children about him he blesses the friends who in his helplessness gave him his start.’

Mr. Annand, Inspector for the Maritime Provinces reports as follows:—

‘I beg to submit my annual report, relative to the inspection of British immigrant children placed in the maritime provinces. Upon the whole I found the children to be bright and intelligent, happy and contented and in desirable homes.

‘I am still convinced that the younger the children are sent to Canada the better will be the results. In my opinion no children over twelve years of age should be sent out for adoption.

‘In conclusion, I may say that child immigration appeals to me, when conducted by societies that show an interest in their children after they have been placed in Canada.’

K. J. Henry reports as follows:—

‘In submitting my general report on the inspection of British children during the year just terminated, I desire to say that it affords me great pleasure to mention the marked improvement, not only amongst the girls and boys—very many of whom are now of age or will be in the near future, but also as regards their homes, employers, the appreciation apparent everywhere and in many cases even affection shown on both sides. This great change is growing gradually but surely, and I attribute it chiefly to the work of inspection, not only by those under the govern-

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ment but also the agents from the various homes—every case being generally and very carefully looked into, and where wrongs exist a remedy applied. The employer being in need of help such as these children can give, and from visits and talks with the inspectors and agents, has, in the majority of cases, become cognizant of what is expected and is therefore striving to carry it out.

‘The attendance at church has been more regular and as a result I have been shown valuable prizes won by girl and boy, not only for good behaviour and regular attendance, but for committing to memory the greatest number of verses from the Bible of any scholar in the class during the year. This and many similar instances, which might be referred to, indicates, to say the least, a favourable progress. Complaints from children and employers have naturally been diminishing, consequently fewer have been met with than in previous years.

‘The school attendance I found to be slightly improved, but still close attention is needed in order that this important part of the agreement may reach a higher plane. One thing I would like to see adopted, and it would certainly help, is the exercising of more care as to the location of the school—the distance from the home, as in many instances coming under my notice, the plea for non-attendance was the great distance to walk, in some cases two or three miles, and that being chiefly during the winter months. To obviate that I would respectfully suggest that a boy or girl during school age should not, no matter how good the home may appear, be placed in such a position. The demand being greater than the supply a discrimination such as I refer to can and should be resorted to.

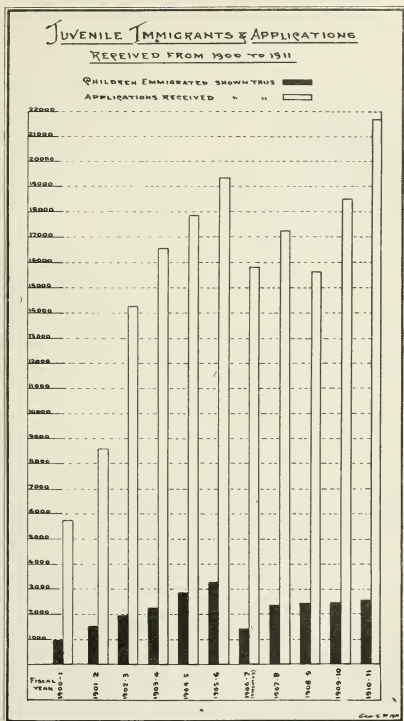
‘Another matter to which I alluded in my last year’s report, and which I, after another year’s experience, am more convinced would give better results if changed, viz., the lack of uniformity in the agreement of the various homes, especially as to clothing, making it a stipulated sum to be expended for that purpose instead of leaving it to the employer. The child would be the gainer, and in general, I think, more satisfactory to the employer. Some of the homes have such a stipulation in their agreements, and where met with, I always found the child properly clothed.

‘The general health of both girls and boys, I may say, is very striking, scarcely even meeting a delicate one, on the contrary, rugged, good features and where given a fair chance doing their part. On the whole year’s work, I am pleased to say, a marked improvement was noticed.’

Mr. James Crowe, of the Liverpool education offices, visited the Dominion during the past summer for the purpose of investigating the general condition and prospects of a large number of children originally from Lancashire.

In his report Mr. Crowe stated in part: ‘During my stay, I travelled some 700 miles by rail, &c., in the provinces of Quebec and Ontario, where practically all of the Liverpool children are placed, and visited about 80 of our children in their residences, besides a large number of poor law and voluntary cases. In almost every instance, the children had either a bank account, or had money to their credit at the home. They were in excellent homes, were well dressed, and well spoken of by their employers. I spoke to most of the children in the absence of their employers, and was particularly impressed by the happy and contented disposition they showed. Many of them had sums of money saved, sufficient to bring them back to England, but they expressed no desire to leave the land of their adoption.

‘Generally speaking, the children’s prospects for success in life in Canada are far superior to what they would be in this country. They are well received and treated by the Canadians; there is no lack of employment for them; while the remuneration is practically double what they would receive here. The cost of living, however, is slightly higher.’



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STATEMENT showing the number of children emigrated to Canada during the fiscal year by some of the principal societies and agencies, and the number of applications received for children during the same period.

Society or Agency.	Children Emigrated.	Applications received for Children.
Dr. Barnardo's Homes, Toronto and Peterborough, Ontario and Winnipeg, Man.	924	15,064
Miss Macpherson, Stratford, Ont.	227	798
J. W. C. Fegan, Toronto, Ont.	96	300
Rev. Dr. A. E. Gregory, Hamilton, Ont.	106	589
Rev. Robert Wallace, Belleville, Ont.	75	373
Fairknowe Home (Mr. Quarrier's), Brockville, Ont.	192	1,138
The Misses Smyly, Hespeler, Ont.	27	500
Mrs. Birt, Knowlton, Que.	161	1,266
The Catholic Emigration Association, Ottawa, Ont.	334	713
Church of England Waifs' and Strays' Society, Sherbrooke, Que.	66	139
Church of England Waifs' and Strays' Society, Niagara-on-the-Lake, Ont.	37	415
Mr. Middlemore, Halifax, Nova Scotia.	157	325
*Salvation Army Emigration Agency, Toronto, Ont.	13	125
Mrs. Wallis, Toronto, Ont.		11
†Mrs. Close, Nauwigewauk, New Brunswick.		12
Children's Aid Society of London, England.	26	
Self Help Emigration Society, Montreal, Que.	80	
Emigrated by private parties in western Canada.	3	
	2,524	21,768

* Not reported. † Did not emigrate.

It will be noted that the children are sent in large numbers to the provinces of Ontario and Quebec and the maritime provinces, from whence there comes the greatest demand for their services as farm helps.

TABLE showing the number of children emigrated by the principal societies and agencies during the past ten years.

Agency.	FISCAL YEAR.										Total.
	1900-1	1901-2	1902-3	1903-4	1904-5	1905-6	1906-7	1907-8	1908-9	1909-1910	
Dr. Barnardo.	385	889	1,150	1,188	1,574	1,434	944	950	1,034	1,010	10,558
Rev. R. Wallace.	59	71	75	94	116	112		80	38	46	691
Miss Macpherson.	60	45		142	200	207	91	166	175	175	1,261
Church of England Society.	60	85	89	83	84	144	17	126	123	74	885
Bristol Emigration Society.	33	38	13	40	40	72					236
J. W. C. Fegan.	43		46	49	53	100		73	75	109	548
Liverpool Catholic.	43										43
Canadian Catholic Society.	60	132	125	106							423
Catholic Emigration Assoc'n.			151	206	328	359	175	332	308	317	2,176
Mrs. Birt.	95	137	158	106	169	191	70	173	142	187	1,428
J. T. Middlemore.	108	99	127	130		298		145	152	129	1,188
Children's Home and Orphanage.	29	38	41	60	84	102	109	76	90	107	736
Girls Home of Welcome.	2	4									6
Mr. Quarrier.					157	187		183	173	139	839
Salvation Army.						20	39		42	44	145
Children's Aid of London.		2			3				24	23	52
Women's National.								31			31
Mrs. Wallis.								12	13	10	35
Mrs. Close.								3			3
East End Emigration Fund.			4								4
Self Help Society.									13	22	35
Misses Smyly.						32	10	25	22	30	119
Working Boys Home.				8		6					14
	977	1,540	1,979	2,212	2,814	3,258	1,455	2,375	2,424	2,422	21,456

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The following condensed statement shows the number of juvenile immigrants who arrived in Canada during the years mentioned, together with the number of applications received by the various agencies during the same period:—

Fiscal Year.	Children Immi- grated.	Applications received.
1900-1	977	5,783
1901-2	1,540	8,587
1902-3	1,979	14,219
1903-4	2,212	16,573
1904-5	2,814	17,833
1905-6	3,253	19,374
1906-7 (9 months)	1,455	15,800
1907-8	2,375	17,239
1908-9	2,424	15,417
1909-10	2,422	18,477
	21,456	149,302

The task of selecting suitable homes and situations for these young people, as indicated by the reports of my assistants, would appear to have been conducted on the whole with reasonable caution.

Appended herewith may be found brief notes of my inspection of the following receiving and distributing homes:—

THE NATIONAL CHILDREN'S HOME AND ORPHANAGE (FOUNDED BY DR. T. BOWMAN STEPHENSON).

Hamilton, Ont.

On March 22, 1911, I paid my annual official visit of inspection at this interesting home.

Their first party of sixty-six had just, a few days previously, arrived and were being made ready for distribution. They appeared to be in robust health, of good physique and well suited for farm work and life.

Mr. Hills advised me that the number of applications for boys is increasing every year and a higher rate of wage is offered by the farmers in this part of Ontario. Indentures are made for one year. New agreements were being entered into and a number of the boys, for their second year of apprenticeship, were actually doubling their first year's wage. No difficulty whatever is experienced in collecting their wages. Employers pay according to contract.

Mr. Hills further stated that the suitability of the boys sent out for farm work was beyond question. A small number only were removed from situations during the past year, and the majority of these were only transferred at the terminations of their indentures in order to obtain a higher wage, owing to their progress and value as farm helps.

I perused a number of letters which had just been received from their wards, and I judged they were happy and contented in their new life and occupation. Included in the correspondence were letters from some of their older boys who, after serving their apprenticeship with Ontario farmers, were now on homesteads of their own in the provinces of Alberta and Saskatchewan.

The work of this home is efficiently conducted.

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THE CATHOLIC EMIGRATION ASSOCIATION.

Ottawa, Ont.

In the month of June, I had the privilege of meeting and conferring with Rev. Canon Pinnington and Rev. George V. Hudson, both of whom are prominently identified with the various branches of juvenile philanthropic effort in England amongst children of the Catholic faith. These gentlemen had come to the Dominion for the purpose of studying the condition and progress of the children sent forward to Canada in previous years under the auspices of this association.

Their reports concerning the progress and success of the young immigrants, a number of whom they had personally visited, were most gratifying.

During the past year two hundred and seventy boys and sixty-three girls had been received and placed in agricultural districts. These juveniles, I find from reports before me, are well looked after and every effort is made to secure for them fair treatment.

A staff of visitors is engaged the year round, inspecting and reporting on the children individually.

The work of the agency extends throughout the provinces of Quebec and Ontario, while a few of their lads have been placed with farmers in New Brunswick and Nova Scotia.

In all, one thousand two hundred and sixty-seven children are under their supervision and were personally visited during the year. Their health and conduct have been good.

The home is comfortable and admirably maintained.

THE SALVATION ARMY.

Headquarters, Toronto.

On March 20, I paid my annual visit of inspection at this centre.

A smaller number of juveniles than anticipated were brought to Canada during the past year and these included seven from poor law schools.

Brigadier Morris reports that their young immigrants have been settled on farms and are doing satisfactorily.

There are eighty under supervision and each had been visited and reported upon during 1910 by officers on their immigration staff. From some of their reports which I perused, it would appear that their young people were comfortably settled and doing satisfactorily.

The Army was again unable to cope with the demand for juvenile immigrants.

A well appointed receiving home has been provided for the children on their arrival at Toronto.

THE COOMBE HOME (MISSES SMYLY).

Hespeler, Ontario.

Mr. Tebb's reported a very satisfactory year's work. Nineteen boys and eight girls were emigrated to Canada in 1910. One hundred and fifty children are under control and supervision in the western counties of Ontario. In addition to this large family there are one hundred boys and girls over age, i.e., 18 years, also kept in touch with. These had been sent to Canada in charge of other agencies previous to the establishment of the 'Coombe' Home.

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Thirty-five children were placed in approved homes and situations, and for each child indentured the superintendent had fifteen applications.

The children, on their arrival, are not immediately sent out, but spend some months in training at the home. Gardening, bee culture and poultry raising, are the occupations afforded.

I found the home in excellent order throughout. The children's quarters were all that could be desired, and the home efficiently managed. The children were happy, contented and well clad. This home receives exclusively Irish children.

'OUR WESTERN HOME,' FOR GIRLS, CHURCH OF ENGLAND SOCIETY.

Niagara-on-the-Lake, Ontario.

On the occasion of my visit at this pioneer receiving and training home, March 23, 1911, there were forty-three children in residence. Their ages ranged from 10 to 17 years.

The policy of this society is to confine their operations to the placing of children exclusively with members of the Church of England in the province of Ontario. At fourteen years of age the children are placed out as nurse and general maids. There are at present one hundred and fifty of their wards in foster homes and domestic service.

The training afforded here is most useful—sewing, house and laundry work. The younger children are really what is known in England as 'half timers,' i.e., 'in the forenoons they attend an elementary school at the home under the charge of a qualified lady teacher and in the afternoons sew, iron and do various bits of work. This training must be beneficial to them when they leave to earn their own living.

A poultry yard and a very nice garden surround this historical house, and the children are also permitted to take a hand in the care of both.

I found the sleeping quarters, dining room, and in fact, the building throughout, neat and scrupulously clean, reflecting credit on Miss Bayley, who has long been in charge of the home.

During the past year, it was gratifying to learn that a number of their girls had married and settled in homes of their own.

A lady visitor travels throughout the province a good part of the year, visiting and supervising the children in their situations and foster homes.

THE SELF-HELP SOCIETY.

East End Emigration Fund—Mr. E. Marquette, Montreal, Agent.

During the past year eighty boys were received and placed in situations in various localities in the provinces of Ontario and Quebec. Mr. Marquette reports that 'with one or two exceptions these boys have given excellent satisfaction, and have proven to be an acquisition to Canada.'

THE MIDDLEMORE HOME.

Fairview, near Halifax, Nova Scotia.

One hundred and fifty-seven children were received from the Birmingham homes during 1910. Their next party, it is expected, will number one hundred and sixty, and should reach Canada early in June. Included therewith will be a large number of children of from four to nine years of age.

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There were no children in residence at this date. Three visitors devote their time visiting the children in their homes and situations. Mr. Gerow advised me that the result of the past year's inspection had proved very satisfactory. Out of seven hundred and twelve children he and his assistants had visited, six hundred and seventy-nine were satisfactory reports and only thirty-three unsatisfactory. Sixty-five children were re-settled; owing to dissatisfaction, fourteen; unsatisfactory, seventeen; poor homes, fourteen; further services not required, twenty.

The operations of this agency cover a large area and the children are distributed as follows: New Brunswick, 435; Nova Scotia, 419; Prince Edward Island, 13; Maine, United States of America, 1, making a total of 868 young people under the supervision of this agency. One death amongst their number occurred during the year, a boy of 17 years of age. It was not found necessary to return any of their wards to England.

Owing to the large number of desirable homes and situations available throughout the maritime provinces, very few children remain at headquarters. Every necessary comfort, however, is here provided for the children. I found the home in excellent order throughout.

MR. J. W. C. FEGAN'S HOME.

295 George Street, Toronto, Ontario.

I paid my official visit to this interesting home on April 18, 1910, and was again afforded the pleasure of meeting Mr. Fegan, who had personally accompanied a party of ninety-seven boys to Canada. They were a fine, bright lot of boys, well clad and suitably outfitted for farm life and work. The opportunity was given me of speaking a few words of welcome, and I was pleased to note that they were all inculcated with the idea that farming was to be their future occupation. Mr. Fegan advised me that they were to be apprenticed only with approved farmers, many of whom had received in previous years his boys, who had now outgrown their minority and were doing for themselves. The characters and dispositions of these young immigrants were known to Mr. Fegan before their selection for Canada, and he looked forward with confidence to their success in the Dominion.

That they fully appreciate all that Mr. Fegan had done for them may be shown from the fact that their 'old boys' during the past year sent \$4,000 as a New Year thank-offering out of their own hard-earned savings toward the support of 'the old homes'—\$300 more than last year and fifty-seven repaid the \$50 spent on their emigration 'to help another poor fellow out.'

The total of these new year thank-offerings, which is an annual affair, from 1889 to 1911, was \$44,910, and in all six hundred and six have repaid the \$50 to give 'some lad left behind the same good chance in life.'

Mr. George Greenway has again assumed the duties of superintendent of the home.

The home affords every comfort for the children and the books and records are well and carefully kept.

MISS MACPHERSON'S HOME,

Stratford, Ontario.

During the year I personally inspected a large number of children from the Hackney and West Ham poor law schools, and who, as wards of this agency, were

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indentured with farmers in the western counties of Ontario. With few exceptions I found the children bright and intelligent, in good homes, and well spoken of by their employers.

There were three children at headquarters on the occasion of my visit—one just recovering from having been kicked by a horse, and the others were employed at the home.

Two parties of children were received and distributed from this home. The first arrived in May, eighty-six boys and thirty-six girls; the second reached Stratford in July, and was made up of sixty boys and fifty girls.

The home is well maintained, and both Mr. and Mrs. Merry are deeply interested in the welfare of the children.

MARCHEMONT HOME,

Rev. Robert Wallace—Belleville, Ontario.

On January 26, 1911, I paid an official visit at this home. There was but one child in residence, a girl who had been returned for treatment owing to illness, and who will in due course be replaced.

This home is admirably kept up. The history and records of the children are systematically kept. Each child is under supervision until it reaches its eighteenth year, and none are placed out except under a written indenture.

With such good facilities as are here afforded, I should like to see a larger number of children sent forward. The number of applications for boys and girls under 16 have been extraordinary, and came chiefly from farmers in that splendid dairying and mixed farming section, northern and central Ontario.

In addition to Rev. Mr. Wallace personally, a special visitor is engaged visiting the children in their homes and situations.

MRS. BIRT'S HOME,

Knowlton, Quebec.

Three parties of children, boys and girls, were received during the year at Mrs. Birt's Home. Comfortable quarters are here provided for the children during their stay at Knowlton.

The home is in charge of a capable staff of ladies who are much interested in their duties, and the effort to do the best for the children in their homes and situations is well maintained.

The children are properly supervised by a lady and two gentlemen visitors of long experience in their work.

The children, with comparatively few exceptions, have fulfilled the hopes of their benefactors and are doing creditably.

The work of this home is widespread and extends throughout the province of Quebec and eastern Ontario. The books and records are well and neatly kept, and every necessary detail concerning the progress of their wards is readily accessible.

A special feature of the work of this home for many years, has been the annual visit of Mrs. Birt, one of the founders of the juvenile immigration movement to Canada. Owing to her advancing years and indifferent health, I regret to say, she was prevented from crossing the Atlantic during the past summer.

DR. BARNARDO'S HOMES,

During 1910, four parties of children were emigrated to the Dominion under the auspices of these homes, consisting in all of 924—a slightly smaller number than that of 1909. Twenty-five thousand children have been emigrated since the inauguration of Dr. Barnardo's emigration work.

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The operation of this organization is largely confined to the province of Ontario, although each year a fair number of boys are sent to western Canada.

In the new provinces of the Dominion good openings appear for boys who have completed their indentures with Ontario farmers and passed the school age.

In 1910 twenty-seven boys were placed in Manitoba and nine in Saskatchewan. Five hundred and twenty children are personally visited at least once annually under the efficient direction of Mr. E. A. Struthers, the manager of the western branch at Winnipeg. The total emigration to western Canada exceeds three thousand juveniles. Generally speaking, I am advised, the children are well treated by their employers.

There were only two children at headquarters on the occasion of my visit, September 3, 1910, and these were merely transients, changing situations.

Mr. A. B. Owen, general superintendent of Canadian agencies, makes this most gratifying statement: 'Many hundreds of old Barnardo boys who have barely attained their majority are to-day owners and masters of properties and are advancing rapidly in the way of independence and prosperity.'

On January 24, I paid my annual visit at the receiving and distributing home, 50 Peter street, Toronto. There were twenty-two little boys temporarily in residence, all, in appearance, properly dressed and cared for, and attending a private school which is connected with the home. The majority of these lads had previously been 'boarded out' in foster homes in various parts of Ontario, and were merely here awaiting to be sent to places.

Eight hundred of their wards are 'boarded out' in selected homes, usually a nearby small town or village where proper school privileges are available, and with persons who own a sufficient plot of land and keep a horse, cow and poultry, thus providing a moderate amount of work which would acquaint the child to some extent with farm and rural life.

Dr. Barnardo's Canadian operations have so expanded that it has been found necessary to permanently add a physician to their staff. When serious illness amongst the children wherever situated, is brought to their notice the doctor is sent to see and report on the condition of the child.

As previously stated, situations for the young immigrants are sought amongst farmers.

THE MARGARET COX HOME FOR GIRLS,

Peterborough, Ontario (Inspected January 25, 1911).

Forty-three girls were in residence. At this season many of the children complete their 'boarding out' term and return to Peterborough for a brief stay before being placed in service.

The children whom I inspected here to-day were, generally speaking, bright, healthy and well clad.

The home is under excellent management, and is splendidly arranged and kept up, and provides every necessary comfort for the children when for any reason they are returned.

A total of over 5,000 girls have been received and placed in homes and situations since the opening of the home.

THE CHILDREN'S AID SOCIETY OF LONDON, ENGLAND.

Canadian Immigration Agency, Winnipeg, Manitoba.

On September 7, I paid my annual visit of inspection to this agency. I found the reception home in good order, and the accommodation provided for their wards

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quite sufficient as very few of their young immigrants return to Winnipeg after being placed out owing to the great distances, but are sent from one situation to another.

For the first year their boys are paid a wage of six dollars a month and board, and for the second year on the farm eight dollars a month. For the third year their earnings vary from twelve dollars to twenty-five dollars a month, practically the wage of a man.

Rev. Mr. Fea informed me that a number of the society's older immigrants had taken up free grant homesteads and were quite prosperous farmers on their own account. He instanced a number of cases, but spoke of two boys who had only been in Canada three years before they took up land.

There has been, as usual, a greater demand on him from farmers of western Canada for juvenile labour than he could supply.

One of their wards was returned to England during the year, owing to chronic ill health.

Twenty-four juveniles whose ages averaged fifteen years were received and placed in situations in the early summer, nineteen of whom had previously done both farm and garden work in England.

'FAIRKNOWE HOME,' BROCKVILLE, ONTARIO.

Canadian Branch of Orphans' Homes of Scotland—Founded by William Quarrier.

One hundred and ninety-two children of whom one hundred were boys and ninety-two girls from the Scottish National Homes, Bridge of Weir, were received and placed in approved homes and situations during the past year.

The demand for the services of Scotch children for domestic and farm work has always been very great. The number of applications received in 1910 was 1,138, a very material increase over those of the previous year.

The new arrivals were placed in situations previously arranged for them with farmers in eastern Ontario, within a few days after their arrival at Brockville.

Rev. Mr. Grierson stated that every day he not only receives good reports of their wards, but employers, in nearly every case, are writing to have their indentures renewed for another year.

Twenty-seven marriages were reported. A good number of the older and experienced boys have gone to western Canada and are doing satisfactorily there.

A careful, personal supervision of the children is maintained by means of personal visitation and correspondence.

Their books, records and correspondence are systematically kept and information concerning each child is readily accessible. The health and behaviour of the children have been excellent.

There was only one lad in residence at this date, and his services are required about the home.

The home is admirably adapted for its purpose and the management is most creditable to Mr. Grierson, the superintendent.

Your obedient servant,

G. BOGUE SMART,

Chief Inspector of British Immigrant Children and Receiving Homes.

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REPORT OF THE MEDICAL OFFICER.

OTTAWA, May 1, 1911.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to transmit my annual report relating to the medical inspection of immigrants during the fiscal year 1910-11.

The medical inspection carried on by this department has not been extended in any notable particular during the year; but owing to the increased immigration from Europe, additional medical officers have been required at the port of Quebec. Indeed, with the large number reaching there on some days, it is essential to have a change of inspectors as it is a trying and responsible task, and physical weariness might naturally lessen that watchfulness so necessary to the detection of less marked cases. As will be referred to later, the fact that 41 insane persons, arriving during the year, passed inspection and were subsequently deported, shows that every facility must be given for careful inspection at the seaports. The practice of two inspectors examining each immigrant at Quebec has proved advantageous in this matter of careful observation.

Reference was made in my last report to the fact that the requirements of the Immigration Act and the regulations relating to the detention of immigrants at ports of entry have resulted in increasing care being exercised in foreign countries in the selection of emigrants by steamship companies and others interested in the work. The provisions for this in Germany, as well as in England, were pointed out and the admirable quarters at German, Dutch and Belgian seaports were described in last year's report. It is learned, however, that some of the vessels doing the emigrant trade of the Baltic and German oceans have in some cases vessels so crude as to their facilities for bringing emigrants to British ports that in at least some Danish vessels there are still common steerages for both men and women, where there are three beds in a single tier, and the upper ones can only be reached by the iron ladder. A case of cholera, which reached Quebec last November from Southampton, had arrived in the Thames from Libau in Russia, after a voyage of six days. A personal experience on a vessel from Harwich to Antwerp leads me to conclude that conditions exist which would not be tolerated long on vessels coming into Canada. That the overcrowding and unsanitary conditions in such have a direct bearing upon the health of emigrants in transit to Canada may be assumed from the history of the cholera case already mentioned. The investigation of the sanitary conditions as regards especially overcrowding and ventilation of emigrant ships was investigated by me last summer, and many points of interest were set forth in my special report on the subject. The conclusions in brief arrived at are that, while modern shipbuilding has made great advances by equipping many of the larger new vessels with mechanical fan ventilation, as where one large ship has 15 inlet and 10 outlet fans by which 3,000,000 cubic feet of air may be pumped into the lower holds and steerage apartments per hour, yet there are still being built new vessels for the Canadian immigrant trade which, in regard to air space per immigrant and means for mechanical ventilation, are no great improvement over older vessels.

So long, however, as the regulation of the air space and number of persons allowed on ocean-going emigrant steamers is that of the British Board of Trade, which in round numbers provides that there may be as many emigrants to a compartment as one to each 100 cubic feet of air space, while there is no rule providing that each compartment must be provided with any definite amount of fresh air per capita, it is apparent that such conditions as are illustrated in the report of the United States Commission on Immigration, published last autumn, will continue. It is

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simply impossible, with an amount of fresh air supplied per person of from 300 to 500 cubic feet per hour, as shown by tests made by me on a ship of average class, to do justice, in the matter of health and sanitation, to emigrants even in good weather, to say nothing of the conditions during cold and wet weather. The fact of relatively few being detained on account of sickness, while showing the results of great care in the selection of emigrants in Europe, and of the fair treatment on shipboard, cannot neutralize the effects of a ten days' sleeping and of ten of living during the day in the steerage compartments of ships fetid with foulness from overcrowding and sometimes insufficient and most crude sanitary conveniences.

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TABLE I.—Showing total Detentions on account of Disease with Rejections in 1910-11.

Class of Disease.	Cause of Detention.	Number Detained	Number Released.	Number Debarred	Number in Hospital.
I. Contagious diseases.....	Measles.....	2	2		
	Typhoid fever.....	1	1		
	Erysipelas.....	3	3		
	Malaria.....	1		1	
	Mumps.....	2	2		
	Totals.....	9	8	1	
II. General diseases	Alcoholism.....	9	6	3	
	Tuberculosis.....	21	10	10	1
	Adenitis.....	2	2		
	Rheumatism.....	12	12		
	Anæmia.....	3	3		
	Diabetes.....	1		1	
	Lupus.....	1			
	Laryngitis.....	1	1		
	Ascites.....	1	1		
	Meningitis.....	1	1		
	Marasmus.....	1	1		
	Totals.....	53	37	15	1
III. Eye diseases.....	Trachoma.....	463	196	259	8
	Conjunctivitis.....	226	203	13	10
	Observation of eyes.....	308	220	63	25
	Cataract.....	1	1		
	Blindness.....	2	2		
	Ulcer of cornea.....	1	1		
	Loss of eye.....	1	1		
	Injury to eye.....	2	2		
	Defective sight.....	20	5	15	
	Keratitis.....	3	2	1	
	Pterygium.....	1	1		
	Blepharitis.....	1		1	
	Iritis.....	1	1		
	Totals.....	1,030	635	352	43
IV. Nervous system.....	Insanity.....	11	3	8	
	Observation of nervous system.....	1		1	
	Paralysis.....	7	5	2	
	Epilepsy.....	15	7	8	
	Locomotor ataxia.....	4	3	1	
	Convulsion.....	2	2		
	Feeble minded.....	58	31	22	5
	Idiocy.....	8	3	5	
	Imbecile.....	1	1		
	Totals.....	107	55	47	5
V. Circulatory system.....	Heart disease.....	11	3	8	
	Arterial sclerosis.....	14		14	
	Phlebitis.....	1	1		
	Goitre.....	5	1	4	
	Varicose veins.....	13		13	
	Totals.....	44	5	39	
VI. Respiratory system....	Tonsilitis.....	3	3		
	Pneumonia.....	12	11	1	
	Bronchitis.....	1	1		
	Observation of lungs.....	41	24	17	
	Pleurisy.....	1			1
	Asthma.....	1	1		
	Totals.....	59	40	18	1

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TABLE I.—Showing total Detentions on account of Disease with Rejections in 1910-11 —*Concluded.*

Class of Disease.	Cause of Detention.	Number Detained.	Number Released.	Number Debarred.	Number, in Hospital.
VII. Digestive system.....	Hernia.....	24	3	20	1
	Enteritis.....	4	4		
	Diarrhoea.....	2	2		
	Gastritis.....	4	4		
	Appendicitis.....	1	1		
	Totals.....	35	14	20	1
VIII. Genito-Urinary system	Syphilis.....	2	1		1
	Hydrocele.....	2	1	1	
	Pregnancy.....	6	4	2	
	Confinement.....	4	4		
	Miscarriage.....	3	3		
	Gonorrhoea.....	1		1	
IX. The skin.....	Totals.....	18	13	4	1
	Psoriasis.....	2	1	1	
	Disease of skin.....	10	9		1
	Scabies.....	129	126		3
	Impetigo.....	2	2		
	Eczema.....	7	7		
X. Malformation and disease of old age and infancy.....	Sycosis.....	7	6	1	
	Tinea.....	12	12		
	Pityriasis rubra.....	2		2	
	Favus.....	1		1	
	Pediculosis.....	1		1	
	Pruritis.....	1	1		
	Totals.....	174	164	6	4
	Senility and Debility.....	19	4	15	
	Abscess.....	23	22	1	
	Deaf and dumb.....	9	9		
XI. Accidents.....	Deafness.....	2	2		
	Curvature of spine.....	4	2	2	
	Atrophy of leg.....	1	1		
	Totals.....	58	40	18	
	Dislocated hip.....	1		1	
XII. Ill-defined causes.....	Dislocated shoulder.....	1		1	
	Fracture of arm.....	1	1		
	Loss of leg.....	2	2		
	Loss of arm.....	1	1		
	Injured hand.....	3	3		
	For operation.....	1	1		
	Broken leg.....	2	2		
	Fracture of knee.....	3	1	1	1
	Injured on board.....	3	3		
	Lameness.....	3	1	1	1
	Synovitis of knee.....	2	2		
	Totals.....	23	17	4	2
	Physical debility.....	54	10	43	1
	High temperature.....	51	48	3	
	Diseased gland.....	6	3	3	
	Seasickness.....	2	2		
	Otitis.....	2	2		
	Diseased hip.....	5	5		
	Follicular hypertrophy.....	1	1		
	General observation.....	137	130	7	
	Totals.....	258	201	56	1
		1,868	1,229	580	59

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The foregoing table indicates very well the high state to which inspection prior to sailing and inspection at the quarantines is being carried out. Compared with last year the contagious diseases included in Class I. are even more favourable, measles having been reduced to a minimum. From one ship alone, 71 cases were taken off or developed at Grosse Isle quarantine. The other diseases, all except mumps of a low degree of communicability, were few and unimportant.

In Class II., alcoholism has only the same importance as last year, 9 cases being detained, but tuberculosis shows 21 cases detained as compared with 15 last year. Of these, 10 were rejected. A number of cases of so unusual a form of rheumatism occurred in boys from a Baruardo home that it seemed rather the result of some common cause, possibly in their food; but a careful investigation by the ship's company and the superintendent of the home failed to discover any adequate cause.

Class III., which includes eye diseases, shows a remarkable falling off in those diseases. As has before been referred to, the increase of last year had a special relation to a new line of ships bringing immigrants from a continental port; but their difficulties became so many that they ceased carrying a class of undesirables, many of which had been refused by other steamship lines. The number has hence declined to that of previous years thus:—

	1908-9.		1909-10.		1910-11.	
	Detained.	Rejected.	Detained.	Rejected.	Detained.	Rejected.
Trachoma...	456	94	824	413	463	259
Conjunctivitis ..	330	1	227	4	226	13
Other diseases...	122	20	310	28	341	80

It is apparent, however, that the number debarred for trachoma was proportionately somewhat higher than during 1909-10, although more cases detained were classed under the heading 'observation.'

Under Class IV., the total number detained was 107, as compared with 85 in the previous year, but the total immigration has exceeded that of last year. The number detained for insanity was 11, as compared with 15, and 15 for epilepsy, as compared with 5, showing that the work done by ships' medical officers is greatly improving in accuracy since these cases are not liable to be discovered during the brief examination on landing. There were 67 feeble-minded, idiotic, and imbecile persons detained as compared with 52 in the previous year. No disease in the whole range coming under inspection is so likely to measure the care and intelligence of the medical inspection exercised as this class, so many of whom are on a border line between the effective and ineffective. Indeed the need for a careful study of this whole class is of the utmost importance in order that we may assure ourselves that ineffectives do not gain entrance to Canada except under very special circumstances.

Class V., diseases of circulatory system, has more than double the detentions when compared with last year, being 44 to 15, of whom 39 were debarred, most being 'old age' cases.

Class VI., or diseases of respiratory organs, has more than twice as many cases as last year, being 59 as compared with 26. Of these 41 were for observation of the lungs as compared with 7, showing that any suspicion of tuberculosis is followed up by detention and close and continued observation. A number of such, 17, were rejected most probably because tuberculosis was diagnosed.

Class VII., diseases of the digestive system, shows much the same low rate as last year, hernia, however, rather increasing, of which 20 in 24 were debarred.

Class VIII. has never reached any great importance, due largely to the high class of immigrants, and perhaps, too, to the difficulties of accurate diagnosis.

Class IX. The total cases in this class have greatly increased, especially in the matter of scabies which the reports indicate are chiefly detentions at Pacific ports.

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Only one case of that difficultly curable disease, favus, was reported, but there were 12 cases of ringworm or tinea.

Class X., which includes malformations and defects of old age, were very few, obviously because of these being so readily detected that few would venture to take passage.

Similarly Class XI. is of minor importance, there being only 23 detentions on account of injuries.

Class XII. has an assortment of ill-defined causes, chief amongst which is the convenient term physical debility. Only 54 cases came under it, of which 43 were rejected. Included with these were 137 detained for general observation; a 'juste milieu' with regard to many cases which are on the borderland of effectiveness, whether mental or physical, being only possible 'where such are detained for some days and kept under surveillance. That there were not more is a tribute to the discrimination of the medical inspectors at trans-marine ports.

The following table gives the total number of immigrants deported during the year for any medical reason whatever. The total, 240, is approximately that of the previous year when it was 212, but it is considerably less proportionately, remembering the notable increase in the total immigration.

TABLE II.—Showing total deportations on account of disease in 1910-11, compared with deportations during 1909-10.

	1909-10.	1910-11.
Abscess.. . . .	2	2
Accompanying patients.. . . .	0	18
Alcoholism.. . . .	0	9
Arteritis cerebral.. . . .	0	1
Asthma.. . . .	0	2
Trachoma.. . . .	2	8
Cancer.. . . .	0	1
Catarrh.. . . .	0	1
Cystitis.. . . .	1	0
Eczema.. . . .	6	0
Epilepsy.. . . .	8	10
General debility.. . . .	27	1
Heart disease.. . . .	4	3
Hernia.. . . .	0	2
Insomnia.. . . .	1	0
Injured.. . . .	1	0
Idiocy.. . . .	2	0
Imbecility.. . . .	1	0
Insanity.. . . .	95	121
Mental weakness.. . . .	9	17
Malaria.. . . .	2	0
Muscular atrophy.. . . .	2	0
Neurasthenia.. . . .	0	1
Nostalgia.. . . .	0	1
Paralysis.. . . .	3	2
Pregnancy.. . . .	3	2
Rheumatism.. . . .	8	2
Senility.. . . .	3	1
Tuberculosis.. . . .	30	33
Venereal disease.. . . .	2	2
	<hr/> 212	<hr/> 240

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A glance at the table at once indicates how the causes determining the deportation of cases have been operative so that year after year we find almost no new diseases entering in as causes of deportation, while of those which are causes, a series of years shows them to have much the same relative position in the list of causes. The list of medical causes separated from all causes shows 240 deportations in 1910-11, as compared with 212 in 1909-10.

There are three specific causes which play an important part as causes of deportation. These are alcoholism which, while having not a single case in 1909-10, had 9 in 1910-11. The next most important cause is tuberculosis of which there were 33 deported this year and 30 the previous year. The third, and as usual the most important cause is insanity, giving 95 deportations last year and 121 this year, or adding idiocy, imbecility and mental weakness, we have 107 in 1909-10, as compared with 138 in 1910-11. The only other cause of any account is trachoma, there being 8 deports, as compared with 2 in the previous year. Inasmuch, however, as there have been but 14 deportations from this cause in nine years, it is apparent that results in any uncured or recurrent cases have not been such as to make its victims dependent upon charity. As already remarked regarding detentions, the care exercised in Europe is eliminating more and more yearly trachoma from the list of detentions.

Reverting to the deportations due to tuberculosis a special study has been made of these since criticisms have been made regarding an assumed large number of tuberculous immigrants entering Canada. During the fiscal year, April 1 to March 31, there were in all 45 cases of tuberculosis brought to the attention of the department from all parts of Canada, or about 1 in every 7,000 immigrants arriving. In addition to these, there were 10 rejected at the seaports.

The following table gives the dates of arrival in Canada and the dates when reported to the department of all cases of tuberculosis.

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TABLE III.—Showing total cases of tuberculosis reported to department from all Canada from April 1, 1910, to March 31, 1911.

One Arriving	Reported to Department.
April 1909.....	May 1910.
November 1909.....	April 1910.
October 1908.....	May 1910.
October 1909.....	May 1910.
April 1910.....	May 1910.
March 1910.....	May 1910.
September 1908.....	May 1910.
April 1910.....	June 1910.
May 1910.....	June 1910.
July 1909.....	June 1910.
May 1910.....	June 1910.
May 1910.....	June 1910.
July 1909.....	June 1910.
June 1907.....	June 1910.
May 1908.....	June 1910.
March 1910.....	July 1910.
May 1909.....	July 1910.
August 1905.....	August 1910.
March 1910.....	August 1910.
July 1910.....	August 1910.
May 1910.....	August 1910.
May 1906.....	August 1910.
March 1909.....	August 1910.
June 1910.....	September 1910.
November 1909.....	September 1910.
April 1910.....	October 1910.
?	October 1910.
September 1910.....	October 1910.
December 1909.....	November 1910.
April 1908.....	November 1910.
September 1909.....	November 1910.
August 1910.....	December 1910.
July 1910.....	January 1911.
May 1910.....	December 1910.
January 1910.....	January 1911.
November 1909.....	January 1911.
September 1910.....	January 1911.
December 1908.....	January 1911.
December 1907.....	February 1911.
October 1910.....	February 1911.
February 1910.....	February 1911.
March 1910.....	February 1911.
May 1910.....	February 1911.
January 1910.....	March 1911.
November 1910.....	March 1911.

It will be understood that this list will not quite tally with the actual deportations during the fiscal year, because on April 1, 1910, there were 10 cases carried over from the previous year, in regard to which action was pending. Out of the total 55 cases, 33 were deported. Dealing with those only reported during the fiscal year, it will be found as follows:—

Arrived in Canada in 1905.....	1
“ “ 1906.....	1
“ “ 1907.....	2
“ “ 1908.....	5
“ “ 1909.....	11
“ “ 1910.....	23
Year not given.....	2

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Of the total number reported, 17 arrived in the first half of 1910 and 7 in the latter half, while the balance were patients who had arrived during some previous year. Of the 24 reported as having arrived during the fiscal year, 20 were reported within six months of their arrival, and may be considered as having the disease upon admission at some seaport. That all, however, ought to have been diagnosed as tubercular at the time of arrival at some port of entry is not reasonable since in some cases some intercurrent disease as typhoid breaks down the physical resistance, and what was a local becomes a general infection, and a rapid decline may follow. Assuming, however, that all were diagnosable, it is perhaps true as regards the other 21 reported. There were 10 who arrived in 1909, 5 in 1908, 2 in 1907, and two others in still earlier years. Remembering that there were 311,084 immigrants admitted to Canada, the 24 arrivals means one case of tuberculosis in every 1,200. As would be expected most were working people, there being 20 labourers, 3 domestics, 1 clerk, 3 in clerical work, 1 mechanic, while others were not given. Their distribution is of some interest and naturally is more or less related to the population of any particular centre. Thus Montreal had 8, Toronto 7, Winnipeg 9, Ottawa 5, London 3, Vancouver 2, Woodstock 2, Calgary 2, while there was 1 at Sydney, Carievale, Saltecoats, Carlyle, Fort William, Moosomin and Kingston. By nationalities there were 20 English, 5 Scotch, 3 Galicians, 3 Americans, 2 Austrians, 2 Finns, 2 Italians, 2 Russians, and 1 each of Macedonian, Hebrew, West Indian, Dutch, French and Belgian nationality. By far the largest number of deportations during the year was due to insanity. Not only are these cases the most unfortunate, but their relation to the expenditures incident to immigration is also of great importance. Under no conditions producers, their compulsory confinement means a necessary expenditure taken altogether of a notable amount annually.

The following table gives the total number of insane immigrants of whom the department has had official cognizance during the past year and of whom 121 were deported.

TABLE IV.—Showing the total number of cases of insanity reported to the department during the fiscal year, 1910-1911.

Year Admitted to Canada.	Number in each Year.	Province from which Reported.	Number of cases Reported	Number of Age Groups.	Number in each Group.
1911.....	5	Ontario.....	64	15-19	9
1910.....	75	Quebec.....	29	20-24	33
1909.....	43	British Columbia.....	38	25-29	45
1908.....	15	Manitoba.....	21	30-34	31
1907.....	12	Alberta.....	9	35-39	21
1906.....	7	Nova Scotia.....	6	40-44	14
1905.....	7	Saskatchewan.....	5	45-49	11
1904.....	6	New Brunswick.....	2	50-54	5
1903.....	1			55-59	2
1901.....	1			60-64	1
1900.....	2			65-69	.....
				70-74	1
				75-79	.....
				80-84	1
Total.....	174		174		174

A number of interesting facts are illustrated by these figures. By far the most important is that, of the total 174 cases dealt with, eighty were admitted during nine months of 1910 and the three months of 1911, and the question naturally arises 'Ought such to have been detected before admission?'

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Several important facts assist in supplying an answer, viz.: (a) The fact that such persons previously must have been at large in their own country, and that apparently they were sane enough to do business and travel to seaports; (b) That they were examined at the seaport by the board of trade medical officer and the steamship company's medical officer, and passed; (c) That they were observed on the voyage by the steamship's medical officer for a week or more, and that these officers are required to report all such cases on arrival in port; (d) Finally such are examined in the routine manner by medical inspectors at the port of entry. It is, however, quite apparent that at least 80 cases broke down within the year of admission to Canada.

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TABLE V.—Deportations, after having been admitted, by causes, from December, 1902, to March 31, 1911.

Causes.	Fiscal Year, 1902- 1903.	Fiscal Year, 1903- 1904.	Fiscal Year, 1904- 1905.	Fiscal Year, 1905- 1906.	Fiscal Period, Nine Months, 1906- 1907.	Fiscal Year, 1907- 1908.	Fiscal Year, 1908- 1909.	Fiscal Year, 1909- 1910.	Fiscal Year, 1910- 1911.	Totals.
Abscess.....					2	2	2	2	2	9
Accompanying pa- tients.....	4	3	1	4	35	26	21		18	112
Alcoholism.....					2	2	27		9	40
Anaemia.....							1			1
Arteritis cerebral.									1	1
Asthma.....		1							2	3
Bad character.....							7	9		16
Blindness.....				1		2	3			6
Cataract.....							1			2
Defective Sight.....		1	1	6	4	5	11			28
Trachoma.....			2			1	1	2	8	14
Bright's disease.....						2	3			5
Bronchitis.....		1	1			3				6
Cancer.....		1		1			2			5
Catarrh.....									1	1
Chronic dysentery.....	1	2	1	1	1					6
Criminality.....		1	8	1	12	68	115	130	172	507
Crippled.....		4	4	8	4		11			35
Curvature of spine.....						3	1			4
Cystitis.....	1	1		1	2	1	1	1		8
Deafness.....						2	4			6
Diabetes.....					1		2			3
Dislocations.....	2					1				3
Drug habit.....						1				1
Eczema.....							1	6		7
Epilepsy.....	6	4	2	6	6	15	22	8	10	79
Fistula.....						1	1			2
General debility.....	7	8	7	18		60	97	27	1	225
Hæmoptysis.....	1	1								2
Heart disease.....	2	1	3	7	3	5	13	4	3	41
Hernia.....			2	3			8		2	15
Hemorrhoids.....	1									1
Hip disease.....							1			1
Insomnia.....		1				1		1		3
Injured.....						7	6	1		14
Kidney disease.....							1			1
Idiocy.....	1		4					2		7
Imbecility.....		1	1	1	2	2	35	1		43
Insanity.....	1	5	5	12	53	110	113	95	121	515
Mental weakness.....	7	8	2	17	20	43	1	9	17	124
Malaria.....						1		2		3
Muscular atrophy.....				1				2		3
Neurasthenia.....	1		1				1		1	3
Nostalgia.....							1			2
Paralysis.....		3	1	7		5	5	3	2	26
Pleurisy.....	1	1								2
Poisoning (lead).....					1					1
Potts disease.....							2			2
Pregnancy.....		1				1		3	2	6
Prostitution.....		1		2		8	8	6	10	35
Public charge.....	14	19	19	18	28	309	1,074	348	289	2,118
Rheumatism.....	8	7	6	11	10	29	15	8	2	96
Senility.....						8	10	3	1	22
Sclerosis.....			1							1
Tuberculosis.....	8	8	13	6	13	67	54	30	33	232
Vagrancy.....				2		21	56	29	61	169
Varicose veins.....	1	1		3	2		6			18
Veneral disease.....		1	1			4	4	2	2	14
Violation of Immi- gration Act.....									12	12
Totals.....	67	85	86	137	201	825	1,748	734	784	4,667

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DEPORTATIONS, by Nationalities, from December, 1902, to March 31, 1911.

Nationalities.	FISCAL YEAR.									Totals.
	1902-3.	1903-4.	1904-5.	1905-6.	1906-7. (9 mo)	1907-8.	1908-9.	1909-10.	1910-11.	
African, South.							1			1
Australian.						1	1	4	1	7
Austrian, N.E.S.		1				4	17	4	10	36
Bohemian.							3	1		4
Bukowinian.			1			5	4		3	13
Galician.	1		1	4	4	15	16	11	10	62
Hungarian, N.E.S.				1	1	3	1			6
Ruthenian.							1	6	5	12
Slovak.									1	1
Belgian.				1	2	1	2	8	6	19
Bulgarian.						65	74			139
Chinese.			1		1	1	1	1	2	7
Dutch.						10	12	3	2	27
French.			1	1	3	4	18	11	12	50
German, N.E.S.		1			1	8	7	17	10	44
English.	43	58	61	98	130	513	1,081	355	342	2,681
Welsh.		1	2	3	2	2	1	5	3	19
Scotch.	7	8	9	8	26	61	119	89	90	417
Irish.		2	2	3	10	31	34	37	23	142
West Indian.							3	1	6	10
Jamaican.				1			1			2
Greek.							32	2	11	45
Hebrew, N.E.S.			1	8	2	2	32	2	3	50
" Russian				1	2	6	11	1	5	26
" Polish						1		1		2
" Austrian							2		1	3
Italian.	1	4	1		1	13	13	15	13	61
Japanese.							4	1	1	6
Newfoundland.								8		8
Polish, N.E.S.				1	1	8		2	3	15
" German.								1		1
" Russian.						1	3	1	1	6
" Austrian.									1	1
Roumanian.	1	1				2	42	3	2	51
Russian, N.E.S.					1	9	49	5	5	69
Finnish.		4	1			2	3	4	4	18
Spanish.							1			1
Swiss.							2	2	1	5
Servian.									7	7
Danish.		2	2	2	1	6	4	2	3	22
Icelandic.	3			1				1		5
Swedish.	3	1	2	1	4	9	7	6	8	41
Norwegian.	8	2	1	1	1	4	2	3	12	34
Turkish.							20			20
Syrian.						1	1	1	7	10
U.S.A. citizens.				2	8	37	98	119	169	433
Negro.						1	1			2
Hindoo.							24	1	1	26
Totals.	67	85	86	137	201	825	1,748	734	784	4,667

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DEPORTATIONS, by Provinces, from December, 1902, to March 31, 1911.

Province from which deports were sent.	FISCAL YEAR.									Totals.
	1902-3.	1903-4.	1904-5.	1905-6.	1906-7. (9 mos.)	1907-8.	1908-9.	1909-10.	1910-11.	
Lower provinces.	.....	2	.....	3	2	14	19	24	25	89
Quebec.....	18	16	11	27	41	136	684	97	165	1,195
Ontario.....	3	3	8	19	79	383	907	378	349	2,129
Manitoba.....	} 46	64	67	88	66	226	48	97	121	1,074
Saskatchewan...					3	19	27	19	23	
Alberta.....					4	24	14	63	55	
British Columbia					5	23	49	56	46	
Yukon.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1
Totals.....	67	85	86	137	201	825	1,748	734	784	4,667

The systematic inspection, both civil and medical, has gone on at seaports of entry for almost nine years, and a survey of the results as regards deportations and their causes is of much interest. No matter what theories may have been propounded nine years ago, or whatever fears may have naturally seized upon those Canadians, who had grown almost to middle age without seeing more than an occasional British immigrant, at seeing a type of face and of dress, whether of sheepskin or fancy head dress, appearing in their streets not as one but by hundreds, we have to-day nearly a decade of experience behind us, and while some may say the time is too short to judge of permanent influences and effects upon our social and national structure, yet we have a right to draw conclusions on two or three points which in the foregoing table seem to be perfectly clear.

As will be seen, there are only eight distinct causes which have carried the deportations during the period up to three figures, these being friends accompanying deported persons, as the children, husband or wife, 112; criminals, 507; general debility, 225; insanity, 515; mental weakness, 122; public charge, 2,116; tuberculosis, 231; and vagrancy, 169. If we add vagrancy to criminality, giving 676, and general debility to public charge, 2,341, and mental weakness to insanity, 637, it is evident that we have, with tuberculosis, before us only four broad causes so inseparable in all countries, so closely linked as to causation and effects that in any scientific formulation of the degenerative influences acting upon society in all civilized countries they may for practical purposes be looked upon as four causes against which all assaults upon immigration or defences for it, as factors affecting national prosperity, may be based. Hence we may very properly examine as to the proportion in which each of these causes has operated amongst peoples of different nationalities.

Without referring unnecessarily to the relation of any particular cause to any special nationality, the following table of deportations by nationalities throughout all the years holds good.

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TABLE VI.—Table of deportations by nationalities for nine years.

Deportations in nine years.		Total immigrants.
English.....	1 to every 190 in	505,157
Scotch.....	1 to every 336 in	138,909
Irish.....	1 to every 290 in	41,001
Austro-Hungarian.....	1 to every 903 in	121,001
Italian.....	1 to every 1,046 in	63,817
Hebrew.....	1 to every 600 in	48,675
Russian.....	1 to every 564 in	38,950
German.....	1 to every 480 in	21,145
Swedish.....	1 to every 471 in	19,349
French.....	1 to every 324 in	16,236
Norwegian.....	1 to every 405 in	13,798
Japanese.....	1 to every 2,188 in	13,128
Finnish.....	1 to every 749 in	13,498
Chinese.....	1 to every 1,618 in	11,324
United States.....	1 to every 1,429 in	618,700

Remembering that the high type of most of the immigrants from the United States to the western prairies did not seem to make it necessary to make any systematic border inspection as to general health or personal qualities of immigrants during most of this nine year period, the very small proportion of these immigrants whom it has been found necessary to deport is very remarkable when compared with the deports of some others, such as British or French immigrants. The tables have, however, to be studied fairly in keeping with antecedent social conditions in the various countries from which immigrants have come in order that no unjust conclusions be arrived at. While it is doubtless true that, especially in the earlier years of the past decade, the old time traditions and practice in Great Britain of sending out physical and moral 'misfits' to the colonies, encouraged by law in the early half of last century, were followed, yet it will be remembered that quite apart from the actual needs of any immigrant the British Poor Law has for four centuries become so integral a part of the social fabric there that immigrants brought up under its influence have, when in need or distress or sick, without hesitation drifted to the refuges, houses of industry or hospitals in Canada as naturally as they did in England. That the system is liable to be abused is proved by the statistics of hospitals in Canada receiving departmental aid for caring for immigrants, since they show that over 90 per cent of all such patients have been English. That the system of encouraging dependence or pauperism is bad need hardly be argued; but that it is often easier to encourage than to regulate it may be illustrated by the actual returns of hospitals in Ontario. Thus, from 1882 the admissions to the hospitals receiving provincial aid increased from under 5,000 admissions per annum to 32,929 in 1901, while this number had increased in 1906 to 45,551.

While the application of the clauses of the Immigration Act would seem to be adequate to protect the hospitals and other charitable institutions in Canada against immigrants, who might take undue advantage of their open doors, yet it is not unimportant to warn the Canadian people against an abuse of charity which can only result in the demoralization of our own citizens, whether old residents or new comers, and the destruction of that individual independence which hitherto has been a just cause of pride to Canadians, together with the creation of a dependent class which now is the despair of all legislators in England and elsewhere.

Respectfully submitted,

P. H. BRYCE,

Chief Medical Officer.

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BORDER INSPECTION OF IMMIGRANTS.

REPORT OF TRAVELLING INSPECTOR WILLANS.

The Superintendent of Immigration,
Ottawa.

SIR,—I beg leave to submit to you my third annual report. In the eastern district, extending from Toronto to Halifax, of which I have charge, there are at the present time fifty-four ports at which inspection takes place. At sixteen of these places railway lines cross the border, and there are thirty ports where boats from the American side call, whilst at other points there are public highways and bridges. The number of immigration officers in the above mentioned district is seventy-five.

During the past year improvements have been carried out which are proving to be a valuable assistance to the border work. The immigration law and regulations have been amended, orders in council have been passed, office and detention buildings have been erected by the transportation companies and a satisfactory arrangement has been brought about between the department and the transportation companies with respect to the returning of parties who have been rejected at the border.

In the eastern district, office and detention buildings have been erected by the railway companies at the following points: Prescott, Cornwall, Athelstan, Highwater, Beebe Junction, Coaticook, Megantic and McAdam Junction. In all these buildings, with one exception, separate rooms for males and females, with lavatory accommodations, and an office for the inspector have been provided, and in addition to these, buildings are to be erected at Iberville Junction, St. Johns, P.Q., Comins Mills and Aroostook Junction. Offices for the inspectors have also been provided at St. Stephen, St. Leonards, Clair and St. Albans, Vt.

From the figures published with respect to the admission and rejection of persons at the boundary one cannot help being convinced of the very important work which is being accomplished. During the past year 121,451 persons were admitted at the border ports, whilst 15,004 were rejected as undesirable citizens for Canada. It will thus be seen that over 12 per cent of those who sought admission were rejected.

In view of these figures, showing such a large number of persons inspected, including those admitted and rejected, and taking into consideration the great variety of individuals with whom the officers come in contact and the many obstacles with which they have to contend, it is gratifying to be able to report that I have not received a single complaint during the past year from the travelling public with respect to the work or conduct of any of the officers under my charge, and so far as I know no such complaint has been made to the department. This I consider is good evidence that the officers are performing their difficult task in a gentlemanly manner, and that they are endeavoring to carry out the regulations with good judgment.

With respect to the criticisms which appear sometimes in articles in the public press regarding the border work, which in my opinion are very misleading and in many instances very unjust to the officers, I am satisfied that if the writers of such articles would visit some of the border towns and interview the mayors, police magistrates and other officials regarding the effect of the work in those towns, and would also spend a short time with the inspectors and see for themselves the class of men

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engaged as such, the difficult work which they have to perform, the undesirable classes they have to deal with, the abuse and insults which they often receive and their determination so far as they are able to rid Canada of these undesirable citizens, the writers would form a very different opinion of the men employed as immigration inspectors, and they would give a very different report regarding the importance of the border work, its results, and the manner in which it is being performed. It is now a little over three years since this work was commenced. To-day, there are 134 places where inspection takes place along the international boundary from coast to coast, and a staff of over 200 officers employed. There are 44 places where railway lines cross the border and over these crossings 173 passenger trains cross each way daily, Sundays excepted, and in addition to these there are the freight trains and excursion trains. There are also over 170 ports where boats from American ports call, and where inspection takes place, to say nothing of the many bridges and public highways. This gives some idea of the growth of the work and of the system by means of which Canada is endeavouring by a careful selection to admit those who will be a credit to the country and make good citizens, and to exclude those not suitable.

It is certainly a great and important work; a work which requires to be handled with care and good judgment. The duties to be performed by the officers are often delicate and difficult, and it is most essential that men of good character, capable of showing common sense and good judgment, should be selected and good salaries should be paid so that the services of the best men will be obtained and retained for these important positions. Instead of criticizing, finding fault or in any way attempting to put obstacles in the way, every true citizen of Canada should assist in any way he can to sustain our officers in the performance of their duties, in order that the border service may prove to be a means of assisting in building up a nationhood in Canada of which any country would be proud.

During the past winter I made a number of trips to Halifax where I boarded the White Star-Dominion Line steamers from Liverpool to Portland, Me., and on the journey round from Halifax to Portland I gave the Canadian bound passengers, who were to land at Portland, their civil examination. I was very much impressed with the excellent class of settlers arriving by these steamers and the large numbers who came during those months. In consequence of the type of these settlers, I had but few to reject. I would like to take this opportunity of expressing my appreciation of the satisfactory accommodation provided for me for the inspection of the passengers on the steamers, and for the courteous treatment extended towards me by the officials of the White Star-Dominion Line, and by the American officials at Portland.

In addition to the above mentioned steamers I also inspected a large number of the passengers arriving by the Thompson Line boats at Portland.

During the past year I have visited all parts of my district, and the more important points I have revisited several times, and I am pleased to report that I find the work in good shape, and the officers taking a keen and active interest in their duties. I have come in contact with a large number of the American border officials, and I am pleased to know that the best of harmony exists between the officers of the two countries and a great deal of time and inconvenience to passengers has been saved by the reciprocal arrangements existing between the officers of the respective countries.

Allow me to express my appreciation of the consideration you have given to my suggestions and recommendations during the year.

Your obedient servant,

T. B. WILLANS,

Travelling Immigration Inspector.

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No. 2.

REPORT OF TRAVELLING INSPECTOR H. G. HERBERT.

(Central Border District.)

W. D. SCOTT, Esq.,
Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit my annual report as travelling immigration inspector for the year ending March 31, 1911.

On that date there were eighty-five immigration inspectors on duty in the Central Border District, of which I have charge. The following list arranged geographically enumerates the different ports and gives the number of inspectors on duty at each of the 43 ports in this district:—

Name of Port.	No. of regular Immigration Inspectors.	No. of Customs Immigration Inspectors.	Total.
Toronto.. . . .	1	..	1
Port Dalhousie.. . . .	..	1	1
Niagara on Lake and Lewiston, N.Y.. . . .	1	..	1
Queenston.. . . .	..	2	2
Niagara Falls.. . . .	5	5	10
Bridgeburg.. . . .	1	3	4
Fort Erie.. . . .	1	2	3
Erie Beach.. . . .	..	1	1
Crystal Beach.. . . .	..	1	1
Port Colborne.. . . .	..	1	1
Port Dover.. . . .	..	1	1
Port Burwell.. . . .	..	1	1
Port Stanley.. . . .	..	1	1
Rondeau.. . . .	..	1	1
Amherstberg.. . . .	..	1	1
Ojibwa.. . . .	1	..	1
Windsor.. . . .	6	7	13
Walkerville.. . . .	..	5	5
Wolf's Point.. . . .	..	1	1
Walpole Island.. . . .	..	1	1
Port Lambton.. . . .	..	1	1
Sombra.. . . .	..	1	1
Courtright.. . . .	..	1	1
Sarnia.. . . .	5	4	9
Point Edward.. . . .	..	1	1
Goderich.. . . .	..	1	1
Owen Sound.. . . .	..	3	3
Collingwood.. . . .	..	1	1
Midland.. . . .	..	1	1
Depot Harbour.. . . .	..	1	1
Parry Sound.. . . .	..	1	1
Little Current (Manitoulin Is- land).. . . .	..	1	1
Cutler.. . . .	..	1	1
Blind River.. . . .	..	1	1
Thessalon.. . . .	..	1	1
Bruce Mines.. . . .	..	1	1
Sault Ste. Marie.. . . .	4	..	4
Port Arthur.. . . .	1	..	1
Fort William.. . . .	1	..	1
Port Frances (Rainy River).. . . .	1	..	1
Sorague.. . . .	1	..	1
On March 31, 1911, total.. . .	29	56	85
On March 31, 1910, total.. . .	25	53	77

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During the year I made 113 separate visits to the ports in my district. In addition I spent three months in a special trip of inspection to all the international boundary ports west to the Pacific and to the ports on the Pacific coast (including Vancouver Island), as enumerated hereunder in geographical order.

Manitoba.—Emerson, Gretna, Bannerman.

Saskatchewan.—North Portal.

Alberta.—Courtts.

British Columbia.—Gateway, Kingsgate, Rykerts, Waneta, Paterson, Rossland, Cascade, Grand Forks, Carson, Midway, Myncaster, Bridesville, Keremeos, Upper Sumas, Huntingdon, Peardonville, White Rock, Vancouver, Ganges Harbour, Victoria, Nanaimo, Ladysmith, Union (Vancouver Island), Prince Rupert.

State of Washington.—Seattle.

Examination of Inspectors.—Between July 1 and December 31, 1910, during my visits to all the ports above named in addition to those in my own district, as many inspectors as possible were called upon to write answers to an examination paper concerning the immigration law, policy and practice in its operation. The results were, with few exceptions, most gratifying.

In other reports and compilations will be found the interesting figures in various form of this year's record immigration to Canada from south of the boundary line. I do not think it necessary that my report should deal further with these figures except in so far as they reflect upon the increased and excellent work of your staff of inspectors. Compare the figures for the three years since border inspection was first begun (April, 1905):

IMMIGRATION FROM UNITED STATES.

	No. admitted.	No. rejected.
1908-9..	59,832	4,580
1909-10..	103,798	8,997
1910-11..	121,451	15,404

and you will notice that the number of rejections for last year was nearly four times that of the first year and nearly twice that of the second. In my district, it is this part of the work which has occupied most of the inspectors' time and attention, and although the procedure in each individual case of rejection and deportation involves more routine work than formerly, and despite the exacting demands upon the time of inspectors of a general crusade of prosecution, to which I shall specially refer later, the work of the year was performed by a staff very little larger than that of last year.

Speaking generally, I cannot say too much in praise of the intelligent attention given to their work by the immigration inspectors in my district. At the busier ports they have worked hard and well. During the busier months, very long hours and trying duties fell to the lot of each officer upon the staff at Niagara Falls, Bridgeburg and Windsor. An excellent spirit pervades the service. This and the general personal interest in the work accounts for its success.

Holidays.—The arrangement whereby each officer now secures three weeks of annual leave, was much needed, and has been appreciated accordingly.

Sunday Inspections.—The few additional appointments which I am recommending will go far to remove the necessity of the inspectors working seven days in every week at the busier ports.

Office and Accommodations.—The completion by the transportation companies of office buildings and detention rooms at various points along the border has done much to make the inspection of immigrants easier and more agreeable to all concerned. It is a regrettable feature that, where most required, the supply of such accommodation has been longest delayed. On March 31, satisfactory accommoda-

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tion had been supplied by the Michigan Central railroad at Windsor, Niagara Falls and Bridgeburg, by the Buffalo and Fort Erie Ferry Co. at Fort Erie, by the International Ferry Co. at Sault Ste. Marie. Since that date rapid progress has been made with six other buildings at different ports, and before this year ends I hope to be able to report a satisfactory supply of accommodation for the whole of my district.

Assistance from Customs Officers.—To the co-operation of the Customs Department the work owes much of its earlier success. At the less important ports it is advisable that the customs inspectors should continue to act as immigration inspectors, for in the performance of their own work they naturally and unavoidably acquire such information as no other government officers can acquire with as little effort or friction, and moreover they have time to give both customs and immigration work the fullest attention. At the busier ports, however, the conditions have changed. Near the United States border towns are thousands of those who have been rejected by our officers, hundreds who have been prosecuted for violation of the immigration law, and these people are from day to day employing every possible device to re-enter Canada, mislead the inspector or evade inspection altogether. The time has come when these methods must be checked by officers who give their whole attention to such work. Apart from this and the increasing attraction which Canada presents to others of the undesirable class, the more formal procedure required under the new law demands more time than we can reasonably expect from customs officers, whose own work is heaviest where our inspectors most need their assistance. The customs immigration inspectors are accordingly being replaced by regular immigration inspectors.

I am glad of an opportunity to refer to the excellent assistance given us by these officers, not only while in our service, but continued since they ceased to receive the nominal salary from our department. At Windsor, Sarnia and Niagara Falls this spirit of co-operation between the two services is all that it should be. I was impressed also with the valuable work of the customs-immigration inspectors in British Columbia.

Prosecutions for Violations.—One of the features of this branch of the service during the past year, was the frequency and vigour of the prosecutions in my district for offences against the law as it now stands. This was deemed necessary in view of the unsatisfactory conditions created by the insufficiency of former legislation, under which the powerlessness of an inspector to enforce his decisions, or, except in rare instances, to punish deliberate offenders, rendered his position not only difficult but often ridiculous. This condition has been relieved by the simple but effective procedure of the Immigration Act of 1910, and by the continued enforcement of its penal clauses. I might safely add that Canada's immigration inspectors were never better respected along the whole 3,700 miles of the international boundary than they are to-day.

The following are particulars of the prosecutions from the date of the passing of the new Act in May, 1910, to March 31, 1911, and refer to only four of the ports in my district:—

	Informations.	Number withdrawn.	Discharged.	Convicted.	Amount of fines paid.
Niagara Falls.....	40	2	5	33	\$ 808
Bridgeburg.....	37	37	758
Sarnia.....	32	32	685
Fort Erie.....	10	10	262
	119	2	5	112	\$2,513

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The following are a few of the offences which are most commonly met with:—

Assisting to land prohibited persons.

Resisting an officer.

Using another person's naturalization papers.

Returning to Canada after deportation.

Evading and eluding inspection.

Giving false information.

Impersonation and misrepresentation in various forms; by using letters, workmen's identification checks, &c., belonging to others.

Escaping custody.

Wrongfully claiming previous residence and entering with the 'return' portion of another's railway ticket.

The class of offence to which particular attention is now being paid is the entry into Canada of prohibited persons who seek to evade inspection by purchasing railway tickets from one United States point to another United States point upon one of the several lines carrying passengers through Canada 'in transit,' and by leaving the train at a port in Canada.

These prosecutions have been undertaken without legal assistance, except in one or two instances, by the inspectors themselves, who have never before had any experience of such work, and the results to date are, under the circumstances, very gratifying. Particular credit is due to Messrs. C. E. Willox and F. S. Dilworth, the inspectors in charge at Niagara Falls and Bridgeburg respectively, for their successful work in some most difficult cases. The gathering of evidence in these cases has required a great deal of time and careful work on the part of willing officers, in addition to their regular shift of inspection duties. When I add that, in the majority of cases, neither the defendant nor witnesses could speak or understand English, the difficulties will be better appreciated.

The experience gained by some of the officers in this work has qualified them to specialize in prosecution work, and it would be for the improvement of the service in general, if they were sent from port to port, that other officers, less favourably situated, might benefit from their experience.

To be an efficient immigration inspector now requires that one must be a man of many parts. I have noticed that several of the inspectors have within the year strongly developed the 'detective' instinct, and to this is due much of the success in the numerous prosecutions.

In only one case during the year was there any well founded complaint against any of your inspectors in my district, and much was made of that one complaint in the press throughout the Dominion. A prompt investigation followed, and the aggrieved person was fully satisfied with the department's action. The mistake of the officer was an accidental, and not a wilful one, but for months after the press echoed general comments upon 'border incivilities,' and the average reader was led to suppose that the whole border service had 'run amuck,' and that 'border incivilities' were the rule and not the exception. In justice to that officer, I should add that his services since that incident have been most satisfactory and valuable.

Immigration inspection, from its very nature, is most difficult to carry on without wounding some delicate susceptibilities, and if the press feel it their duty to advertise wholesale and unfortunate lapse of an officer who performs this necessary but thankless duty for his country's good, it is only fair that some consideration should be taken of the quiet, thorough and effective work which goes on from day to day. I recall the remarks of a much travelled United States citizen, whom I

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met at the boundary last year: 'Show me the inspector who can for any length of time carry out the instructions of the Immigration Department of either country without incurring some adverse criticism, and I will show you a man fit to represent either country at any of the courts of Europe.' Every officer is doing his best, and I am glad to say further that the department is doing its best to secure and retain the best men for this service.

Border inspection was far from popular at its inauguration; in fact, for a considerable time afterwards its wisdom and usefulness were severely questioned. Now, however, I feel safe in saying that the press of the country is unanimous in endorsing the present activity of your border inspectors. In the light of this earlier criticism, it was with pleasure that I read the following in a recent issue of the *Toronto Globe*:—

‘IMMIGRATION AND GROWTH.

‘Canada can afford to discriminate in the matter of immigration. While it may seem selfish and unreasonable to deprive foreigners of the better prospects of success which our general conditions afford, it is quite fair to take precautions against influences tending to lower our average standard of citizenship. We have not been sufficiently successful in solving the problems of growth to warrant us in keeping the doors open for all who may choose to come! Last year we deported 784 who were found to be physically unfit, or likely through evil tendencies to become recruits in our criminal population. This seems a large record, and it is made more conspicuous by the fact that during the same year 17,816 were rejected at the different ports of entry. This seems like a startling record, but as 15,404 were from the United States, it indicates nothing more serious than border activity in turning back the undesirable floating population.’

In conclusion, I take pleasure in referring to the friendly feeling which exists between the immigration inspection staff of the two countries, and to the spirit of co-operation which has been present along the international boundary.

Your obedient servant,

H. G. HERBERT,

Travelling Immigration Inspector.

PART III
SURVEYS

SURVEYS

REPORT OF THE SURVEYOR GENERAL.

DEPARTMENT OF THE INTERIOR,
TOPOGRAPHICAL SURVEYS BRANCH,
OTTAWA, September 6, 1911.

The Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit the following report of the Topographical Surveys Branch for the year ended March 31, 1911.

During 1910 surveys under the Dominion Lands system were continued in the western provinces under the usual organization. Eighty-eight parties in all were employed, seventy-three of these being regular parties engaged for the season and fifteen being parties organized for special surveys and engaged for short periods only. Of the seventy-three regular parties, thirty-nine were employed by the day and thirty-four were working under contract. Those working under contract were engaged exclusively on township subdivision surveys, while of those employed by the day five were engaged upon the inspection of surveys executed under contract, eight on base lines and initial meridians and twenty-six on miscellaneous surveys and re-surveys.

The weather throughout the season was on the whole very favourable for survey operations. In the southerly districts there was an unusually light rainfall, but surveyors in outlying districts to the north report that precipitation was ample and that grasses and wild plants, where found, were growing luxuriantly. The amount of work performed by each party during the season compares well with the work of previous years. The following is a statement of the average number of miles of survey per party for the last four seasons:—

1910.	279 miles.
1909.	412 "
1908.	366 "
1907.	364 "

The falling off in the mileage for 1910 is accounted for by the fact that during 1907, 1908 and 1909 a large proportion of the surveys were in prairie districts, while all the surveys of 1910 were in country more or less wooded.

One hundred and eighty-three whole townships and twenty-three fractional townships were completely subdivided, while a partial subdivision was made of four hundred and nine others. Complete resurveys were made of eight townships and a partial resurvey of one hundred and eighty-nine others.

The survey parties employed during the season were distributed as follows:—

Parties.	In Manitoba.	In Saskat- chewan.	In Alberta.	In British Columbia.	Partly in one Province and partly in another.	Total.
Paid by the day	1	2	16	10	10	39
Under contract	1	12	21	6	10	50
Engaged for a short time only		5	4			9
	2	19	41	16	10	88

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SURVEYS OF BLOCK OUTLINES.

Eight surveyors were employed on the surveys of base lines and initial meridians. These lines are situated in outlying portions of the country out of reach of railway transportation, and surveyors as a rule make arrangements to have supplies taken in over the winter roads and cached at convenient points in the vicinity of their work. One of their great difficulties is thus overcome, and they can push forward with their work without fear of the failure of their food supply for men and horses. In all, about nine hundred and ninety miles of governing lines were surveyed during the year. Each surveyor prepares a sketch map showing the topographical features of the country for twelve miles on each side of the base or initial meridian, and a report as to its natural resources, &c. In this way the department is furnished with much valuable information that cannot be obtained otherwise.

Mr. Wm. Christie, D.L.S., completed the survey of the eighteenth base and established the twentieth base across ranges one to nine, inclusive, west of the fourth meridian.

Mr. A. W. Ponton, D.L.S., continued the production of the fifth meridian to the north of township 112, and established the twenty-eighth base westerly therefrom across ranges one to seventeen, inclusive, and the twenty-ninth base across range one. He began this survey in the summer of 1909, but was retarded considerably by wet weather and by the loss of his supplies and instruments through an accident on Peace river. He found considerable areas along the meridian, and on the twenty-eighth base flooded from the heavy rains which were prevalent in that district. The survey of the twenty-eighth base will enable the department to subdivide the lands in the vicinity of Vermilion under the Dominion Lands system when the necessity arises. Mr. Ponton reports that the soil there is good and the country well suited for agriculture.

Mr. George McMillan, D.L.S., continued the surveys of the sixteenth, seventeenth and twentieth base lines west of the sixth meridian. He remained in the field during the whole year, and is now surveying the base lines and outlines of the block of three and one-half millions of acres conveyed by the province of British Columbia to the Dominion. The base lines already surveyed in this block will allow of the subdivision into townships of the district known as Pouce Coupé prairie.

Mr. A. Saint Cyr, D.L.S., surveyed the third meridian from township 60 to the seventeenth base line and established that base westerly across ranges one to twelve. His report shows that there are large areas of valuable timber in that region and extensive stretches of good farming land. On the north shore of Sled river in township 63, range 10, there is a settlement of half-breeds who have cleared the land, and are growing all the ordinary vegetables successfully, as well as hay and oats. Fishing, is, however, the great industry at present.

Mr. B. J. Saunders, D.L.S., had instructions to survey the nineteenth base line west of the fourth meridian. Owing to the scarcity of supplies, the extreme cold, and the great difficulties of making trails, he was compelled to abandon the work after the line had been established across five ranges only.

Mr. J. N. Wallace, D.L.S., beginning where he left off in 1909 produced the fourth meridian as far as the northeast corner of section 13, township 95. Mr. Wallace has had many years of experience on the survey of initial meridians and base lines in the western provinces, but he states that the difficulties of his surveys of 1910 were greater than any he had ever before encountered. His report which is published as one of the appendices of the report of the Topographical Surveys Branch gives an interesting description of the country through which that portion of the fourth meridian passes. A sketch map of the portion of the fourth meridian surveyed by Mr. Wallace in 1909 was published with the report of the Topographical Surveys Branch last year, but as no profile was then ready, a sketch map and profile

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for the whole portion of the line surveyed by Mr. Wallace in both 1909 and 1910 are published with the present report of that branch.

Mr. A. H. Hawkins, D.L.S., completed the survey of the twenty-first base line west of the fifth meridian. He began at the east boundary of range nineteen and produced the line east as far as the meridian. This base line passes through a fairly level country, about 60 per cent of which is fit for agriculture. This percentage can be greatly increased by proper drainage. The soil is good and the surface is covered with a luxuriant growth of grass and pea vine. All that is necessary to open up this valuable tract of country is railway transportation. Already large gardens are under cultivation at Atekamic and Wabiskaw lakes.

Mr. E. W. Robinson, D.L.S., during the summer of 1910 produced the principal meridian north to lake Winnipeg, and established the eighth base east of the principal meridian east to lake Winnipeg, and completed the survey of the ninth base west of the principal meridian. The country through which these lines run is mostly swamp and muskeg, rendering the surveys very difficult, but yet the whole distance of over one hundred miles was completed in six months.

During the winter Mr. Robinson produced the second meridian from township 56 to the sixteenth base and established the fifteenth base west of the principal meridian easterly from the second meridian to range twenty. From this base it will be possible to subdivide into townships under the Dominion Lands system the lands in the vicinity of The Pas, as the surveys are required. He reports that at present there is little land in that vicinity fit for cultivation, but thinks that, with proper drainage, it will make first-class wheat land.

TOWNSHIP SUBDIVISION SURVEYS.

Where contract rates for township subdivision are not applicable, parties under daily pay are employed to make the surveys. During 1910 nine parties were engaged upon these surveys.

Mr. J. R. Akins, D.L.S., subdivided portions of townships 21, 22 and 23, range 9, west of the fifth meridian. The object of the subdivision surveys in these townships was to enable the department to deal with lands covered by applications for coal leases. Before subdivision lines under the Dominion Lands system could be projected into these townships, it was first necessary to produce the sixth base line across ranges 7, 8, and part of 9, from the Elbow to the Kananaskis valley. This was also done by Mr. Akins. The country is very rough and survey operations are carried on under great difficulties. An idea of the accuracy which is obtainable under the present system of making surveys, may be gathered from the following statement by Mr. Akins:—

'We at length succeeded in getting both the line and triangulation over into the Kananaskis valley, and here we checked our work by measuring the side of a triangle which had already been calculated, and we found that the two checked to about a link.'

Messrs. W. A. Scott, D.L.S., and J. L. Lang, D.L.S., carried on subdivision surveys in the foot-hills of the Rocky mountains in the vicinity of Livingstone, Oldman and Southfork rivers. Both parties were greatly handicapped by smoke and fire, and were obliged to spend considerable time in assisting the Dominion fire rangers in fighting the fires. Mr. Scott, during the last part of the season, was employed on miscellaneous retracement and traverse surveys in southern Saskatchewan.

Messrs. J. Francis, D.L.S., J. B. McFarlane, D.L.S., O. Rolfson, D.L.S., and A. L. McNaughton, D.L.S., subdivided townships along the Saskatchewan, Brazeau and Pembina rivers in which coal claims are located. The country is very rough and covered with fallen timber which renders survey operations slow.

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Mr. A. L. Cumming, D.L.S., was engaged in projecting township subdivision westerly along the line of the Grand Trunk Pacific railway, from range 25 to the sixth meridian.

Mr. W. A. Duckert, D.L.S., made the necessary surveys of township outlines to define the limits of Porcupine forest reserve west of the north end of Lake Winnipegosis.

CORRECTION, RESTORATION AND MISCELLANEOUS SURVEYS.

Traversing of lakes and rivers, correcting errors in previous surveys, retracing erroneous lines and restoring obliterated monuments, are some of the miscellaneous surveys which are done by parties under daily pay.

Mr. C. F. Aylsworth, D.L.S., was occupied on resurveys in southeastern Saskatchewan, and retracement surveys in Manitoba.

Mr. W. F. O'Hara, D.L.S., resurveyed a number of townships along the international boundary in Alberta. He also subdivided the Royal Northwest Mounted Police reserve at Pincher Creek, and made a survey of villa lots at Waterton lakes in townships 1, ranges 29 and 30, west of the fourth meridian.

Mr. P. A. Carson, D.L.S., was employed on small miscellaneous surveys in southern Saskatchewan and Alberta. His work included the correction of errors in the original subdivision, the re-establishment of lost corners, the traverse of water areas, and investigation of dried up lakes and resurveys applied for. In all he completed about fifty separate jobs during the season.

After the close of his operations in the mountains of British Columbia, Mr. M. P. Bridgland, D.L.S., was employed on miscellaneous surveys in Alberta and Saskatchewan, similar to those performed by Mr. Carson.

Messrs. Carl Engler, D.L.S., E. L. Burgess, D.L.S., and F. H. Kitto, D.L.S., all permanent members of the office staff were sent to the field for short periods to make special surveys for the department.

Mr. Engler determined by latitude observations the position of the northern boundary of Alberta, and made a survey of Smith Landing settlement.

Mr. H. W. Selby, D.L.S., made a settlement survey at McMurray and Athabaska Landing, and an adjustment of settlers' claims at these places. On his return trip from McMurray, Mr. Selby was accidentally drowned in the Athabaska river. He had been connected with departmental surveys more or less since 1883, and continuously since 1902. He was a devoted public servant, and was selected for the difficult task of adjusting claims in these settlements on account of his tact, fidelity and excellent judgment.

Mr. Wm. Ogilvie, D.L.S., surveyed a water-power site for the city of Prince Albert, at Cole Falls on Saskatchewan river.

Mr. W. Thibaudeau, C.E., was employed on a reconnaissance of Winnipeg and English rivers to determine the most suitable locations for storage reservoirs for water-power development.

Other surveyors employed for short periods only on miscellaneous surveys, such as small traverses, timber berths, &c., were Messrs. G. B. Bemister, D.L.S., H. P. Keith, D.L.S., H. G. Phillips, D.L.S., W. R. Reilly, D.L.S., J. E. Woods, D.L.S., and H. B. Proudfoot, D.L.S.

BRITISH COLUMBIA SURVEYS.

Eight parties continued the subdivision of Dominion lands in the railway belt, British Columbia. They were in charge of Messrs. J. E. Ross, D.L.S., G. H. Blanchet, D.L.S., D. A. Smith, D.L.S., P. B. Street, D.L.S., W. J. Deans, D.L.S., A. Lighthall, D.L.S., T. H. Plunkett, D.L.S., and L. D. N. Stewart, D.L.S.

Mr. A. W. Johnson, D.L.S., continued a survey of villa lots at Woodhaven on the North Arm of Burrard Inlet.

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Messrs. A. J. Campbell, D.L.S., and R. D. McCaw, D.L.S., continued the examination and classification of the vacant lands in the valleys of the railway belt, British Columbia. Mr. Campbell worked in the New Westminster district and had under his direction a sub-party in charge of Mr. G. A. Bennett, D.L.S. Mr. McCaw worked in the Kamloops district and had a sub-party in charge of Mr. A. V. Chase, D.L.S. By the classification the lands are divided into fruit lands, farming lands, grazing lands, timber lands and worthless lands.

Mr. M. P. Bridgland, D.L.S., continued the triangulation survey through the Selkirk mountains which had been begun by Mr. P. A. Carson, D.L.S., in 1908 and 1909.

Mr. E. Bartlett, D.L.S., made an investigation of squatters' claims in the railway belt, British Columbia, in the vicinity of Golden in the Upper Columbia valley.

Messrs. J. H. Brownlee, D.L.S., P. C. Coates, D.L.S., J. A. Kirk, D.L.S., and G. L. Williams, D.L.S., were employed for short periods on the survey of timber berths.

INSPECTION SURVEYS.

The same five parties as in previous years were engaged the greater part of the season on the inspection of surveys made under contract.

Mr. E. W. Hubbell, D.L.S., was again working in the Prince Albert district. In addition to the inspection of the surveys performed under contract in that district he resurveyed two townships near Prince Albert. During the season he travelled with his outfit over 1,700 miles by rail and over 1,000 miles by trail, not including the number of miles travelled daily to and from work.

Mr. P. R. A. Belanger, D.L.S., carried on inspection in eastern Manitoba. For a considerable part of the time he was engaged on all miscellaneous surveys in Manitoba and Alberta, which he completed to the number of forty-five. He also made a survey of Bender settlement in township 19, range 1, west of the principal meridian.

Mr. C. F. Miles, D.L.S., inspected the contract surveys in the district northwest of Battleford. He also made a restoration survey of two townships north of Maple Creek and a resurvey of three townships near Prince Albert.

Mr. G. J. Lonergan, D.L.S., in addition to inspection made miscellaneous resurveys and traverses in ten townships, as well as a resurvey of lots 1 to 6 Lac la Biche settlement.

Mr. L. E. Fontaine, D.L.S., inspected contract surveys west of Edmonton, and performed a small number of miscellaneous surveys in that district.

STATEMENT OF MILEAGE SURVEYED.

The following is a comparison of the mileage surveyed every year since 1908:—

Nature of Survey.	April 1, 1908, to March 31, 1909.	April 1, 1909, to March 31, 1910.	April 1, 1910, to March 31, 1911.
	Miles.	Miles.	Miles.
Township outlines.....	2,019	2,089	2,376
Section lines.....	16,985	16,326	11,849
Traverse.....	3,323	2,413	2,758
Resurvey.....	2,175	3,876	906
Total for season.....	24,502	24,704	17,889
Number of parties.....	67	60	64
Average miles per party.....	366	412	279

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The following tables show the mileage surveyed by the parties under daily pay and by the parties under contract:—

WORK OF PARTIES UNDER DAILY PAY.

	April 1, 1908, to March 31, 1909.	April 1, 1909, to March 31, 1910.	April 1, 1910, to March 31, 1911.
	Miles.	Miles.	Miles.
Township outlines	512	861	1,178
Section lines	1,004	1,066	1,487
Traverse	1,158	1,324	462
Resurvey	2,175	3,808	835
Total for season	4,849	7,059	3,962
Number of parties	36	34	30
Average miles per party	135	208	132

WORK OF PARTIES UNDER CONTRACT.

	April 1, 1908, to March 31, 1909.	April 1, 1909, to March 31, 1910.	April 1, 1910, to March 31, 1911.
	Miles.	Miles.	Miles.
Township outlines	1,507	1,228	1,198
Section lines	15,981	15,260	10,362
Traverse	2,165	1,089	2,296
Resurvey		68	71
Total for season	19,653	17,645	13,927
Number of parties	31	26	34
Average miles per party	634	679	410

COST OF SURVEYS.

The following statement shows the average cost per mile of surveys executed by surveyors under daily pay and by surveyors under contract:—

	Surveyors under Daily Pay.	Surveyed under Contract.
Total mileage surveyed	3,962	13,927
Total cost	\$388,606	8376,477
Average cost per mile	828 08	827 03

NOTE.—Owing to the nature of their work the parties under Messrs. E. Bartlett, P. R. A. Belanger, G. B. Bemister, E. L. Burgess, J. H. Brownlee, A. J. Campbell, P. C. Coates, C. Engler, L. E. Fontaine, E. W. Hubbell, A. W. Johnson, H. P. Keith, J. A. Kirk, F. H. Kitto, G. J. Lonergan, C. F. Miles, R. D. McCaw, W. Ogilvie, H. G. Phillips, H. B. Proudfoot, W. R. Reilly, H. W. Selby, W. Thibaudeau and G. L. Williams are not included in the statement of mileage for the year ended March 31, 1911.

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The high average cost per mile of \$27.03 for contract surveys, as compared with \$17.97 for 1909, is due to the fact that all the townships subdivided during 1910 were wooded, while of those subdivided in 1909, 169 were open prairie: the relative rates per mile for surveys in open prairie and in solid bush are as \$7.50 to \$31.

The average cost per mile for surveys performed under day pay increased from \$49.33 in 1909, to \$98.44 in 1910. The average per mile for block outline surveys was \$175, as compared with \$167 in 1909. When the party under Mr. J. B. Saunders, D.L.S., is omitted from the calculation, the average cost per mile for block outline surveys is found to be about ten dollars per mile lower in 1910 than in 1909. Mr. Saunders was compelled to abandon the survey of the nineteenth base line west of the fourth meridian when only a few miles had been run, but after all the initial expenses of organization, travel, &c., had been incurred. Other factors to increase the average cost of the surveys in 1910 were the larger number of parties working in the foothills in Alberta and in the railway belt in British Columbia, and the smaller number engaged upon miscellaneous surveys, resurveys and restoration surveys in other parts of Alberta and in Saskatchewan and Manitoba. Owing to the nature of the country, surveys in the foothills and in British Columbia are much more difficult than in the level and settled districts, and consequently slower and much more expensive. The average cost per mile of surveys in the foothills in Alberta during 1910 was \$79, and in British Columbia \$85, while the cost in Saskatchewan and Manitoba and other parts of Alberta was \$33 per mile.

DESCRIPTIONS OF TOWNSHIPS.

Descriptions of the townships subdivided during the year have been compiled from the surveyors' reports, and will be published in a separate volume.

The subdivision surveys performed prior to March 31, 1910, those made between that date and March 31, 1911, and the resurveys executed during the same period are shown in colours upon the map which accompanies the report of the Topographical Surveys Branch.

MANUAL OF SURVEY.

The seventh edition of the Manual of Survey, which at the time of the issue of last year's report was in the hands of the printers, has since been published and distributed to Dominion land surveyors, and to the members of the office staff.

CONFERENCE OF SURVEYORS-GENERAL.

At the Colonial Conference held in 1907, the following resolution was adopted:—

'That it is desirable that reciprocity should be established between the respective governments and examining authorities throughout the Empire, with regard to the examination and authorization of land surveyors, and that the memorandum of the Surveyors' Institution on this subject be commended to the favourable consideration of the several governments.'

At the suggestion of the Surveyors' Institution, of London, a conference of the surveyors-general of the colonies was called by the Imperial government, to meet in London on October 24, 1910, to discuss the question of reciprocity in the authorization and examination of surveyors throughout the Empire. By order in council of July 21, 1910, I was authorized to attend the conference and proceed to London for that purpose. At the last moment it was found that circumstances in connection with the establishment of the Union of South Africa prevented the representation of the Union at the conference. Moreover, the New Zealand ministers and the state governments of Australia, expressed the wish that the conference should be postponed to the next year, and it was postponed accordingly.

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CORRESPONDENCE.

The correspondence of this branch consisted of:—

Letters received.	11,304
Letters sent.	13,580

ACCOUNTS.

The Accountant's record shows:—

Number of accounts dealt with.	876
Amount of accounts.	\$961,340
Number of cheques forwarded.	3,298

OFFICE STAFF.

The office staff of the Topographical Surveys Branch at Ottawa consists of one hundred and twenty-six employees, or an increase of thirteen over last year. A list of the staff is given as Appendix No. 9 of this report.

Eighteen appointments were made to the staff, three employees were transferred to other branches of the department, and two resigned.

The appointments were Messrs. M. T. O'Meara, A. C. Pick, R. C. McCully, J. N. H. Gagnon, E. E. LaBere, G. S. Jones, C. P. Dubuc, G. H. Cagnat, O. E. Fournier, C. M. Ross, A. H. Beaubien, C. Baril, Jas. Howie, W. A. Purdy, J. H. Brigley, B. J. Roe, J. A. Watson and H. E. Hare. Messrs. A. L. Cumming and G. C. Webb resigned, while Mr. A. Paquette was transferred to the Registration Branch, and Messrs. F. H. H. Williamson and B. E. Norrish to the Railway Lands Branch.

CHIEF DRAUGHTSMAN'S OFFICE.

(*P. B. Symes, Chief Draughtsman.*)

The six sections into which the draughtsmen are divided have continued during the past year on the same lines as before with very little change in the nature of the work or the methods of handling it.

The sketch maps now furnished by surveyors of base lines give valuable information, and together with the sketches accompanying progress reports from other surveyors in the field, now made to supply more information than formerly, provide better material for mapping the country and arranging for subsequent surveys than was previously available.

The number of township plans compiled and drawn for printing is considerably in excess of the number issued in previous years. This is due chiefly to the greater proficiency attained by the draughtsmen employed, as the number of men available has been about the same as last year; there are still, however, large arrears to be made up before this part of the work can be brought down to date. We have been unable to continue the issue of topographical plans of the townships owing to the pressure of other work, although a considerable amount of compiling has been done: one plan covering four townships was printed as an experiment. It is hoped that this very desirable series of plans can be proceeded with before long.

The miscellaneous business, inquiries as to surveys made or proposed, areas, corner monuments, actual or supposed errors in lines, petitions for resurveys, &c., continues to steadily increase.

Details of work in the different sections are given in the reports below by the several heads of sections, and the usual schedule of work executed during the twelve months is added in Appendix No. 5.

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CHIEF DRAUGHTSMAN'S OFFICE—FIRST SECTION—SURVEY INSTRUCTIONS AND GENERAL INFORMATION.

(T. E. Brown, Chief of Section.)

Twenty-one men are employed in this section, the work in general being the preparation of instructions for the surveyors who are engaged in field operations, the care of the office registers, the issuing of preliminary plans, the answering of inquiries from settlers and others, and the preparation of the annual report of the branch.

During the winter months sketches showing previous surveys are compiled for those districts where it is probable that subdivision surveys will be extended during the following season. In addition, information is collected as to the nature of the country, Hudson's Bay Company's posts, Indian reserves, trails, &c. In March and April, as a rule, we are notified of the surveyors selected to take charge of parties under daily pay and of those to whom contracts are awarded. Notifications are at once sent out informing each surveyor of the nature and location of his surveys: detailed instructions are furnished later. During the year one hundred and eighty-two drafts of instructions were prepared involving the compiling of 1,115 sketches, and 35 maps and tracings.

While in the field surveyors are required to furnish to the office sketches showing the progress of their work. Entries in the office registers show that 1,206 progress sketches were received, and that surveyors furnished also 466 books of field notes for township surveys, 294 books and 509 plans, sketches, &c., for miscellaneous surveys, 278 timber reports, 123 statutory declarations of settlers, and returns for 987 magnetic observations, and for 48 timber berths. General reports on their survey operations were received from forty-three surveyors.

Their examination having been completed, 772 books of field notes were placed on record, together with 273 plans of miscellaneous surveys and 123 statutory declarations.

Plans of 740 townships and of 13 settlements or townsites were received from the lithographic office, entered into the registers and distributed, as well as 84 sectional maps and 184 miscellaneous plans.

Preliminary plans were issued for 347 townships.

Eighteen hundred and twenty-seven communications from settlers and others, and inquiries from other branches were received and dealt with; to do this required the preparation of 2,606 sketches, 99 maps and tracings, and the copying of 627 pages of field notes. Thirteen descriptions of parcels of land were drafted.

The compilation of a set of maps to illustrate discrepancies in the surveys and to show closings of township surveys was continued throughout the year: six new sheets were made, and twenty-one revised and brought up to date.

Two thousand four hundred and twenty-five files were received from the Correspondence Branch for use in the work of this branch. Four thousand eight hundred and thirty-one draft letters and memoranda were written.

Eight hundred copies of the seventh edition of the Manual of Instructions were distributed.

CHIEF DRAUGHTSMAN'S OFFICE—SECOND SECTION—SURVEYS IN MANITOBA, SASKATCHEWAN AND ALBERTA.

(T. S. Nash, Chief of Section.)

The examination of surveys in the Yukon Territory has been added to the work of this section, so that now the section has charge of the examination of the survey returns of all Dominion lands except those in the railway belt of British Columbia. The average strength of the staff for the year was twenty-four men.

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In connection with subdivision surveys, sketches sent in by surveyors showing the progress of the work in the field are examined to see that the surveys are being made correctly and in accordance with the instructions. These sketches form the basis for the advances made to contractors. During the year, 978 progress sketches were received and examined, 411 having been sent in by surveyors employed by the day, 403 by contractors, and 164 by inspectors.

When a surveyor's final returns are received, a cursory examination is made of them to detect any serious discrepancies or omissions, and, if necessary, they are returned to the surveyor for correction. Compiled plans are then made from these returns. Plans of 805 townships were compiled and sent to the draughtsmen to be drawn for reproduction, which number includes the first edition plans of 234 townships. An examination was made of 314 subdivision surveys, 260 township outline surveys, and 142 miscellaneous surveys. Compiled plans of 13 miscellaneous surveys were also sent to the draughtsmen, including a plan of McMurray settlement, in northern Alberta, and a plan of resurvey of St. Albert settlement.

When compiling, a very careful examination of the returns of the new survey is made, and a memorandum of any discrepancies or omissions is sent to the surveyor; 408 such memoranda were sent, and 374 replies were received, and the necessary corrections made in the final returns.

Twelve hundred and seventy letters in connection with the year's work were drafted.

On May 25 the work of examining Yukon Territory surveys was transferred from the fifth section, as the staff there was not large enough to attend to this work. The examination of these returns is up to date though the plotting is not, owing to a lack of proper connections and base line surveys. Throughout the year 118 group lot surveys were examined, including 47 received the previous year; 21 base line surveys were also examined, 8 of which were previously received. Of these 45 group lots and 4 base lines were plotted on the Yukon Territory plans.

The question of issuing plans of the Yukon survey for the convenience of the public has been under consideration, and it is proposed to undertake this work during the coming year.

The reports of the inspectors of contract surveys are examined and dealt with in this section; a detailed description of the method of inspection was published in the report of last year. Reports on the inspection of 29 contracts were received during the year, and 30 contract accounts were prepared and closed.

The number of odd jobs dealt with by this section is steadily increasing. One hundred and ninety-five requests for information concerning surveys were received from other branches of the department involving the calculation of 990 areas. Two hundred and twenty-nine plans of road diversions submitted by the provincial governments of Saskatchewan and Alberta were examined.

The plans and notes of 33 timber berths were examined, comprising 152 blocks whose boundaries totalled 1,202 miles of survey and whose area is approximately 770 square miles.

Fifty-five plans of right-of-way of railways were examined, the mileage of which amounted to 1,268 miles. As several of these plans were in duplicate or triplicate, the gross mileage of plans examined was 3,016.

CHIEF DRAUGHTSMAN'S OFFICE—THIRD SECTION—DRAWING FOR REPRODUCTION.

(C. Engler, Chief of Section.)

The staff of this section, during the past year, has been steadily engaged in the preparation of plans for printing, and nothing has interrupted the work. The personnel of the staff is fourteen, one more than last year, as two new appointments were made, and one clerk was transferred to the second section.

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The work is steadily increasing as may be seen from a comparison of the number of township plans issued during the last four years.

1907-08 plans issued.	568
1908-09 " 	612
1909-10 " 	713
1910-11 " 	808

Besides township plans many plans of townsites, settlements and other surveys were made as well as work of a miscellaneous character. The total number of such plans and odd jobs was 231; this includes maps to accompany the report of the branch, the astronomical field tables, diagrams showing altitude of Polaris, and plans to accompany orders in council.

The small printing press is constantly in use printing foot-notes and titles for plans, labels and forms for office use, and many kinds of lettering formerly done by hand.

The method of preparing plans for printing has been fully described in former reports, and no important changes have been introduced during the year. The copying of the plan by means of the tracing frame, the addition of all letters and figures by means of type held in a small tripod, and the addition of all foot-notes, titles, &c., by means of the small printing press, are still followed. An effort is now being made to print such foot-notes and titles directly on the plans instead of printing them on slips of paper which are then pasted to the plans. This, of course, is possible only with the smaller plans as the larger plans cannot be put into the press.

Among the members of the staff of this section are an engraver, a lithographic artist and a mechanical draughtsman. Though not employed by the department in these capacities, their services are made use of when the occasion arises. During the past year the engraver numbered all the technical instruments such as transits, watches, cameras, &c., in the possession of the branch, the artist has been called upon frequently to design coloured covers for pamphlets issued by the department, and the mechanical draughtsman makes the drawings of alterations in instruments, &c. Another clerk is an engrosser, and although there is not much necessity for such work, it has occasionally been found useful in adding titles to photographic albums.

CHIEF DRAUGHTSMAN'S OFFICE—FOURTH SECTION—BRITISH COLUMBIA SURVEYS.

(E. L. Rowan-Legg, Chief of Section.)

The work of this section has been the examination of surveyors' field notes, subdivision surveys, timber berths, mineral claims and miscellaneous surveys. Township and quarter township plans have been compiled, the latter supplanting the former in greater numbers each year, as the information required to be shown increases. The work of compiling some of these plans is difficult and tedious on account of the number of field notes of both Dominion and provincial surveys which have to be consulted.

Much time is often taken up replying to requests for information; in many cases a simple question requires a long search through field notes and correspondence on files.

As the number of surveyors engaged on subdivision was double that of the previous year, the work of preparing instructions and making sketches to accompany the same was greatly increased.

In 1909, Mr. A. W. Johnson made a survey of villa lots at Woodhaven in sections 23, 24 and 25, fractional township west of township 39, west of the coast meridian, and a plan of the survey was compiled in this office. Considerable trouble and delay

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arose in compiling this plan; the returns were only pencil field notes, as the surveyor had to undertake other important work before completing his returns of the survey, and a large number of calculations had to be made by the compiler. A plan to accompany a pamphlet on Woodhaven was also made.

Plans of the towns of Yale and Golden were issued during the year.

The staff of this section consists of nine men, which is the same as last year.

The work of this section consisted of:

Preliminary plans issued.. . . .	56
Township plans compiled.. . . .	113
Townsite plans compiled.. . . .	2
Plans and sketches made.. . . .	312
Returns of township subdivision examined—	
Books.. . . .	27
Plans.. . . .	31
Returns of miscellaneous surveys examined—	
Books.. . . .	8
Plans.. . . .	15
Returns of timber berths examined.. . . .	31
Returns of mineral claims examined.. . . .	16
Letters and memoranda written.. . . .	1,064
Returns of timber berths made.. . . .	1
Requests for various information dealt with.. . . .	841
Letters of instructions drafted.. . . .	109

CHIEF DRAUGHTSMAN'S OFFICE—FIFTH SECTION—MAPPING.

(*J. Smith, Chief of Section.*)

The staff of this section has been increased from nine to thirteen; but the amount of absence, due to sickness, has been equivalent to the absence of one man the whole year.

The only Yukon work done by this section was the registering of returns of surveys received, and the examination and correction of about four hundred photocopies of plans that are filed in the Dawson office. On May 25, 1910, all the Yukon work was transferred to the second section.

The sectional map work is as follows:—

Sectional maps, 3 miles to an inch, reprinted.. . . .	38
Sectional maps, 3 miles to an inch, revised.. . . .	56
Sectional maps, 6 miles to an inch, reprinted.. . . .	46
New tracing, 2 miles to an inch.. . . .	16
Proofs examined.. . . .	45
Letters and memoranda written.. . . .	366
Letters and memoranda received.. . . .	163
Returns of timber-berth surveys used in compiling.. . . .	248
Township plans used in compiling.. . . .	568
Plans of railways used in compiling.. . . .	51
Field books of surveys used in compiling.. . . .	215
Plans of surveyed roads used in compiling.. . . .	377
Plans of Indian reserves used in compiling.. . . .	46
Post office names and positions checked and compiled.. . . .	758

The following miscellaneous work was also done by this section:—

A plan of the subdivision of Woodhaven was plotted and two tracings made, together with a small key map showing the position of Woodhaven.

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A revised and enlarged index map was made as copy for the engraving of a new map which includes the 'Peace River Block,' and as far north as Lake Athabaska.

The work of reproducing A. O. Wheeler's map of part of the Rocky mountains was prepared for the photographer, and a portion of the map of the Selkirk range was traced for the same purpose.

CHIEF DRAUGHTSMAN'S OFFICE—SIXTH SECTION—SCIENTIFIC AND TOPOGRAPHICAL WORK.

(*G. B. Dodge, Chief of Section.*)

CORRESPONDENCE.

Letters received and referred to this section.	435
Letters of instructions prepared.	44
Draft letters prepared.	546
Office memos sent.	278

LEVELS.

All the surveyors on base lines are required to run levels. Bench marks are established at intervals not greater than one mile apart. Whenever it is at all possible these bench marks are cut in the rock, a mark being cut with the cold chisel. Where rock is not available trees may be used, the trees being blazed and the letters B.M., with the number of the bench mark being cut on the tree. A photograph of a tree bench mark is published with the report of the Topographical Surveys Branch. The descriptions of the bench marks are given, and they are referenced by the chainage on the line and the approximate distance north or south. The difference of elevation between successive bench marks is checked either by a second independent line or by a system of double turning points, these differences of elevation being required to check within 0.2 feet per mile—not a very high grade of accuracy, but probably sufficient for most practical purposes, and it was not considered advisable to ask for too high a standard at the initial stages of the work. Surveyors this past year have been requested to take aneroid readings conjointly with the levels, to enable us to obtain approximate data until ties can be made with railway levels. These aneroid readings have not yet been reduced, so that no statement can be made of their probable accuracy.

Level returns for 1910, received to date.	648 miles.
Previous levels.	854 "
Total levels to date.	1,502 "
Total level returns examined and profiles plotted. . .	1,304 "

MAGNETIC OBSERVATIONS.

The subject of terrestrial magnetism has received a great deal of attention within recent years among the civilized countries of the world. Magnetic surveys are being conducted in several countries. The United States have now very complete information over their whole country, and are able to publish a fine isogonic map. For some time past we have felt the need of such a map for the district covered by our own work, and have received numerous inquiries from others for the same. This office is most advantageously situated to gather this information. Having a large staff of surveyors in the field every year, scattered over a large area, we are able to collect in a short time, and at no additional expense, a large amount of magnetic information. All surveyors employed by the day are required to take these observations. The magnetic needles now supplied are especially designed for

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this work, and with few exceptions are very sensitive. Through the courtesy of Mr. R. F. Stupart, the Director of the Meteorological Service, the compasses are all tested by the officer in charge of the Magnetic Observatory at Agincourt, and the index correction determined. Where the needles are found to be anything but first-class, a new compass is furnished the surveyor.

In the reduction of the observations to a common epoch we are very much handicapped by the absence of a magnetic observatory in the territory covered by the observations. Two of the staff of this division were placed at widely separated points in the northwest this past season, taking hourly declination readings for a whole month. These observations were afterwards plotted and compared with the daily photographic trace of the declinometer at Agincourt. Investigation of the results appears to show that the reduction of our declination observations by means of the Agincourt records is well worth the trouble, the precision of the resulting declination being apparently increased about two and one half times. It is realized, however, that this is really not much more than a makeshift, and that what we require for proper reductions are the records of an observatory in the northwest. This matter is now under consideration by the Director of the Meteorological Service, who states that he may possibly be able to establish one there this coming season.

Declination returns for 1910, received to date.	987
Previous returns.	1,104
Total returns to date.	2,091
Declination observations, 1910, for comparison with Agincourt.	908
Dip observations, 1910.	94
Total force observations, 1910.	72

TRIANGULATION.

Owing to an insufficient staff and press of other work, the office computations of the triangulation in the railway belt in British Columbia are entirely in arrears, nothing whatever having been done with them. The office needs the information which the triangulation will give, and we are also receiving outside requests for information. A special effort will be made this coming year to get the work up, and we hope to be able to state in our next report that the computations are up to date.

ASTRONOMICAL WORK.

All the returns of azimuth observations from block surveyors for the year 1909 have been examined and checked.

The latitude observations of Mr. C. Engler, D.L.S., taken at Fort Smith in 1910, have been examined and checked.

The astronomical field tables for twelve months have been computed.

STAR DIAGRAMS FOR LATITUDE OBSERVATIONS.

Rapid settlement of the country has compelled the abandonment for some years past of the old ideal system of running base lines in blocks across four ranges. In order to keep sufficiently in advance not to retard the subdivision, block surveyors have been required to run the base lines right across between adjacent meridians. There is thus no closing on their work for a distance of perhaps 150 miles or more. The positions of the base lines again are dependent on the meridians. For this reason the new model base line transit has been designed and fitted with accessories for the purpose of taking latitude observations by Talcott's method. Surveyors on meridians will, in future, be expected to take frequent latitude observations to provide

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an efficient independent check against any considerable error in chainage. Perhaps the most tedious part of a latitude observation by Talcott's method is the preparation of the observing list, especially when several star catalogues have to be consulted. To facilitate the preparation of these observing lists and save the surveyor's time, star charts were compiled in 1908, and were described in the report for that year. These charts contain stars to the fifth magnitude only. It was found last year that the telescopes on the latest base line transits were sufficiently powerful to observe most stars marked up to the seventh magnitude without difficulty. Our observing lists were, therefore, very much restricted when made from the star charts. The stars had been plotted directly from the different catalogues, that is to say, the positions had not been referred to a common epoch, but to the epoch of the catalogue from which they had been taken, so that some stars were plotted for epoch 1890, some for 1900 and some for 1908. It was, therefore, decided to entirely replot the charts, reducing all star places to epoch, 1910, and embracing all stars up to the seventh magnitude. This has now been completed, and the charts have been printed. The charts contain all stars within the desired limits of declination given in the *Nautical Almanac*, *Berliner Jahrbuch*, *Connaissance des Temps*, *Star List of American Ephemeris*, *Greenwich Second Nine-Year Catalogue* for 1900, *Greenwich Second Ten-Year Catalogue* for 1890, *Ambronn Sternverzeichnis*, 1900. There are 6,740 stars in all. We have now in hand the preparation of a star list to be used in conjunction with the star charts. This list will give the mean places for 1910 of all the stars plotted, and is intended to take the place of the different catalogues.

TOPOGRAPHICAL WORK.

Topographical plans of 156 townships were compiled.

TESTING LABORATORY.

The testing laboratory, the absence of which has prevented the proper testing of block surveyors' transits, is at last under construction, and will be finished shortly.

PHOTOGRAPHIC OFFICE.

(J. Woodroffe, Chief Photographer.)

The work of the chief photographer has greatly increased. Especially is this noticeable in velox printing, in which department 4,770 prints were made. Last year the velox were included in the bromide work, but are now classed separately.

The purchase of a new velox printing machine fitted with a mercury vapour lamp enables one to turn out velox and artura prints expeditiously.

Increases are shown in dry plate developing and in solio printing. Blue prints also show a marked increase. The process of bromide enlarging has been greatly expedited by the installation of a five-tube mercury vapour lamp, by means of which enlargements or lantern transparencies can be made at any time, and not be dependent on the sunlight as hitherto.

Last summer the chief photographer visited Quebec, Father Point and Rimouski, where he obtained negatives of shipping, incoming immigrants, landing of the mails, &c. He also visited many places in the eastern townships, and took photographs of cattle, farms and farming operations, for the use of the Immigration Branch.

The total of work executed during the year shows an increase of 50 per cent over that of the year previous. The staff is the same as that of last year.

PHOTOGRAPHIC OFFICE—PROCESS WORK.

(H. K. Carruthers, Process Photographer.)

The new frame for hanging copying camera and copying board, mentioned in last year's report, has given excellent satisfaction, and during the past year representatives of outside firms visited the office to inspect this most up-to-date apparatus.

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Two firms outside the city are copying this camera to use in their photographic studios.

With the removal of the printing department from this office to the Imperial building, we will have more room at our disposal, and hope in the course of the next two or three months to be able to make our large size negatives of 24" x 32".

We are installing in the basement of the Imperial building the machinery for a photo-engraving plant, transferred to us by the Public Works Department, and when this is installed, any half-tone and line cuts required for our branch can be made in this office.

An interesting piece of photo-lithography was started this year, the reproduction in colours of Mr. A. O. Wheeler's map of the main range of the Rocky mountains with parts of the Dogtooth and Selkirk mountains. This will require the making of about fifty negatives 16" x 18", and a considerably larger number of photo-lithographs. The expense of reproducing this will be less than one-quarter the cost of engraving it on stone.

BOARD OF EXAMINERS FOR DOMINION LAND SURVEYORS.

(*F. D. Henderson, Secretary.*)

The Board of Examiners for Dominion Land Surveyors held two meetings during the year. The first was a special meeting lasting from April 30 to June 6 (inclusive), 1910, during which examinations were held at Ottawa, Montreal, Toronto, Winnipeg and Vancouver. The second was the regular annual meeting called for by section 9 of the Dominion Lands Surveys Act. It began on Monday, February 13, 1911, and lasted until March 30, 1911. During this meeting examinations were held at Ottawa, Halifax, Montreal, Kingston, Toronto, Winnipeg, Calgary, Edmonton and Vancouver. The total number of candidates for examination was 257. Of these 186 tried the preliminary examination as against 362 in 1909-10. Sixty-nine tried the final, and two tried the examination for Dominion Topographical Surveyor. Sixty-four candidates were successful at the preliminary examination, as follows:—

PRELIMINARY EXAMINATION.

Alexander, Walter C., Ottawa, Ont.	Macdonald, Alexander Gilmour, Toronto, Ont.
Aslat, Edward K. S., Northminster, Sask.	Macpherson, Harold Nolan, Kemptville, Ont.
Bolton, Lambert E. B., Wiarton, Ont.	Marshall, Joseph A. P., London, Ont.
Bowman, James Thornley, London, Ont.	Meikle, Angus Urquhart, Kingston, Ont.
Bradley, James Dennis, Ottawa, Ont.	Moulton, Hazen Parker, Ottawa, Ont.
Brown, Lindsay O., Ottawa, Ont.	MacLaurin, James Gladstone, Vankleek Hill, Ont.
Cameron, Max G., Peterborough, Ont.	MacLeod, David Douglas, Parkhill, Ont.
Chisholm, Kenneth Gordon, Halifax, N.S.	McCloskey, Michael D'Arcy, Chelsea, P.Q.
Clark, H. Jackson, Wellington, Ont.	McCully, Robert Chesley, Ottawa, Ont.
Coltham, George William, Aurora, Ont.	McKay, Robert B., Vancouver, B.C.
Cordukes, John Patrick, Ottawa, Ont.	Norrish, Wilbert Henry, Guelph, Ont.
Côté, J. Aurèle, Ottawa, Ont.	Perron, Hermel Marie, Edmonton, Alta.
Cousineau, Aimé, Ottawa, Ont.	Prevost, Raoul de M., St. Jérôme, P.Q.
Dawson, Irvin Harrison, St. Catharines, Ont.	Ratz, John Earl, Elmira, Ont.
Dennis, Thomas Clinton, Ottawa, Ont.	Richardson, Colin Esdaile, Toronto, Ont.
Dimock, Clarence Lewis, Upper Newport, N.S.	Roberts, Otto B., Kingston, Ont.
Earle, Henry Arthur, Toronto, Ont.	Roberts, George Rowland, Winnipeg, Man.
Edgecombe, G. Harold, Ottawa, Ont.	Ross, Charles Cathmar, Ottawa, Ont.
Elliott, George Reginald, Goderich, Ont.	Sibbett, William Algernon, Bracebridge, Ont.
Ford, John W. H., London, Ont.	Smith, K. Harold, Harrow, Ont.
Frédette, Joseph Frédelin, Ottawa, Ont.	Smith, Neville Herbert, Ottawa, Ont.
Gibson, Colin W. G., Toronto, Ont.	Surette, Germain Augustin, West Pubnico, N.S.
Goodman, Hyman Meyer, Toronto, Ont.	Vickers, Newell, Renwick, Ont.
Gordon, Heber, Leduc, Alta.	Von Edeskuty, Joseph Otto, Calgary, Alta.
Gorman, Edwin, Buckingham, P.Q.	Wadlin, Lorenzo Norette, Ottawa, Ont.
Haggen, Geoffrey Loosmore, Revelstoke, B.C.	Warrington, George Albert, Cornwall, Ont.
Hotchkiss, Cyrus Percival, Edmonton, Alta.	White, Donald Alexander, Ottawa, Ont.
Huether, Alvin D., Wiarton, Ont.	Wight, Edmund James, Ottawa, Ont.
Jarvis, Ralph Hemsworth, Toronto, Ont.	Workman, Thomas Oswald, Ottawa, Ont.
Johnson, Hubert Colpoys, Ottawa, Ont.	Wright, James Goldwin, Valleyfield, P.Q.
King, Arthur Harry, Edmonton, Alta.	Zinkan, William Edward, Southampton, Ont.
Kingston, Kenneth J., Ottawa, Ont.	
LaBere, Edwin E., Ottawa, Ont.	

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Thirty-eight candidates were successful at the final examinations as follows :—

FINAL EXAMINATION.

Bartlett, Ernest, Smithville, Ont.	Lee, Roger Melville, Galt, Ont.
Bennett, George Arthur, Eden, Ont.	Martindale, Ernest Smith, Kingsmill, Ont.
Bush, Clayton E., Toronto, Ont.	Martyn, Oscar William, Mitchell, Ont.
Chartrand, Donat Emile, Ottawa, Ont.	Menzies, James Mellon, Ottawa, Ont.
Chase, Albert Victor, Orillia, Ont.	Miller, Henry Belfrage, Montreal, P.Q.
Cowper, George Constable, Welland, Ont.	Murray, Ernest William, Seaforth, Ont.
Dawson, Frederick James, Ashcroft, B.C.	McElhanney, William George, Vancouver, B.C.
Day, Harry Samuel, St. John, N.B.	McMaster, William A. A., Palmerston, Ont.
Dennis, William Melbern, Ottawa, Ont.	Pearce, Seabury Kains, Calgary, Alta.
Dillabough, James Vidal, St. Boniface, Man.	Pequegnat, Marcel, Berlin, Ont.
Eagleson, Francis Mervin, Gowrie, Ont.	Powell, William Hall, Little Harbor, N.S.
Evans, Stanley Livingstone, Athens, Ont.	Rainboth, George Louis, Ottawa, Ont.
Glover, Arthur Edward, Beaverton, Ont.	Ransom, John Thomas, Toronto, Ont.
Grassie, Charles Andrew, Welland, Ont.	Roy, Joseph Emile, Quebec, P.Q.
Gray, James Edward, Uxbridge, Ont.	Seibert, Frederick V., Southampton, Ont.
Heuperman, Frederick Justinus, Calgary, Alta.	Taylor, William Emerson, Owen Sound, Ont.
Hoar, Charles Millard, Ottawa, Ont.	Walker, Claude Melville, Guelph, Ont.
Johnston, William James, St. Catharines, Ont.	White, Walter Russel, Ottawa, Ont.
Keith, Homer Pasha, Edmonton, Alta.	Wilson, Reginald Palisser, Winnipeg, Man.

One candidate, Wilnot Maxwell Tobey, Ottawa, passed the examination for Dominion Topographical Surveyor.

As in former years, the time of the board at both meetings was largely taken up with the reading and valuation of the candidates' answers, and in the preparation of sets of question papers for the next examination.

In addition to this, the evidence submitted by candidates at the final examination in proof of their eligibility therefor, had to be examined. This evidence consisted of certificates of Provincial Land Surveyors, and of affidavits of service under articles of apprenticeship.

Section 22 of the Dominion Land Surveyors Act provides for a shortening of the term of service from three years to one year for men holding diplomas or certificates from technical colleges; and it is provided that 'it shall rest with the board to decide whether the course of instruction in such college or university meets the requirements of this section.'

Applications for admission to the privileges of section 22, are being constantly received. Several such from graduates of Canadian, British and foreign universities and colleges were considered by the board and decisions reached in regard to graduates of these institutions which will guide the board in dealing with similar applications in future.

Oaths of office and allegiance, and bonds for the sum of one thousand dollars each, as required by section 25 of the act, were received from, and commissions as Dominion land surveyors issued to thirty-six surveyors.

Every Dominion land surveyor is required to be in possession of a subsidiary standard of length (D.L.S. Act, Sec. 35). Thirty-eight new standards were issued to surveyors, two, which had changed hands, were re-tested, and fifty-four were sent to the Surveyor General of British Columbia for the use of British Columbia surveyors. A list of surveyors who have been furnished with standard measures up to March 31, 1911, will be found in Appendix No. 10.

The correspondence of the Board was as follows:—

Letters received.	1,705
Letters sent.	950
Circular letters, pamphlets and parcels sent.	1,512

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APPENDICES.

The following schedules and statements are appended.

No. 1. Schedule of surveyors employed and work executed by them from April 1, 1910, to March 31, 1911.

No. 2. Schedule showing for each surveyor employed from April 1, 1910, to March 31, 1911, the number of miles surveyed of township section lines, township outlines, traverses of lakes and rivers and resurvey; also the cost of the same.

No. 3. List of lots in the Yukon Territory, surveys of which have been received from April 1, 1910, to March 31, 1911.

No. 4. List of miscellaneous surveys in the Yukon Territory, returns of which have been received from April 1, 1910, to March 31, 1911.

No. 5. Statement of work executed in the office of the chief draughtsman.

No. 6. List of new editions of sectional maps issued from April 1, 1910, to March 31, 1911.

No. 7. Statement of work executed in the photographic office from April 1, 1910, to March 31, 1911.

No. 8. Statement of work executed in the lithographic office from April 1, 1910, to March 31, 1911.

No. 9. List of employees of the Topographical Surveys Branch at Ottawa, giving the name, classification, duties of office and salary of each.

No. 10. List of Dominion Land Surveyors who have been supplied with standard measures.

Nos. 11 to 51. Reports of surveyors employed.

NOTE.—Appendices Nos. 11 to 51 appear in the report of the Topographical Surveys Branch in monograph form.

MAPS AND PROFILES.

The following maps and profiles accompany the report of the Topographical Surveys Branch in monograph form:—

Map showing subdivision surveys and resurveys made from April 1, 1910, to March 31, 1911.

Maps to accompany reports of surveyors.

Profiles of certain base lines.

I have the honour to be, sir,

Your obedient servant,

E. DEVILLE,

Surveyor General.

TOPOGRAPHICAL SURVEYS BRANCH

SCHEDULES AND STATEMENTS

APPENDIX No. 1.

SCHEDULE of Surveyors employed and work executed by them from April 1, 1910, to March 31, 1911.

Surveyor.	Address.	Description of Work.
Akins, J. R.	Ottawa, Ont.	Production of the sixth base line across ranges 7, 8 and part of 9, part subdivision of township 24 range 6 and townships 21 and 22 range 9, part resurvey of township 23 range 9 and township 24 range 6 west of the fifth meridian.
Aylesworth, C. F., Jr.	Madoc, Ont.	Retracement survey in township 13, range 6, townships 13 and 14, range 7 and township 13, range 8, east of the principal meridian; township 20, range 21 and township 29, range 32 west of the principal meridian; township 30, ranges 1 and 2, townships 27 and 28, range 5 and township 2, range 12 west of the second meridian. Traverse in township 30, range 1, west of the second meridian, and subdivision survey and resurvey in townships 30 and 31, range 31, west of the principal meridian.
Baker, J. C.	Kingston, Ont.	Contract No. 13 of 1910. Subdivision of townships 57, 58, 59 and 60, ranges 26 and 27, west of the third meridian.
Bartlett, E.	Smithville, Ont.	Investigation of squatters' claims in the railway belt of British Columbia in the upper Columbia valley in the vicinity of Golden.
Bélanger, P. R. A.	Ottawa, Ont.	Inspection of part of contract No. 19 of 1909; reinspection of contract No. 33 of 1907, and inspection of mounding in contract No. 6 of 1909. Miscellaneous surveys in townships 22, 23 and 24, range 3, townships 22 and 23, range 4, township 16, ranges 7 and 12, township 1, range 13, east of the principal meridian; townships 15 and 19, range 1, townships 15 and 24, range 2, townships 18 and 19, range 3, township 21, range 4, townships 14 and 22, range 6, township 21, range 7, township 22, range 8, township 30, range 9, townships 15 and 18, range 10, townships 9 and 18, range 11, township 30, range 15, township 32, range 18, and township 34, range 20, west of the principal meridian; townships 31 and 32, range 15, townships 44, 45 and 46, range 16, townships 45 and 46, range 17, township 37, range 19, township 38, range 21, and town-

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APPENDIX No. 1.—*Continued.*

SCHEDULE of Surveyors employed and work executed by them from April 1, 1910, to March, 31, 1911.—*Continued.*

Surveyor.	Address.	Description of Work.
		ship 36, range 23, west of the fourth meridian; township 60, range 4, townships 58 and 60, range 5 and township 58, range 6, west of the fifth meridian.
		Survey of Bender settlement in township 19, range 1, west of the principal meridian.
Bemister, J. B.	Winnipeg, Man.	Survey of blocks 1, 2 and 3 of timber berth No. 1713 in township 50, range 32, west of the principal meridian and townships 48, 49 and 50, range 1 and townships 48 and 49, range 2, west of the second meridian.
Blanchet, G. H.	Ottawa, Ont.	Survey in townships 20 and 21, range 29, west of the fifth meridian; townships 21 and 23, range 1, township 23, range 2, township 21, range 6, townships 20, 22 and 23, range 8, township 23, range 9, and townships 21 and 22, range 11, west of the sixth meridian.
		Traverse in townships 20 and 21, range 29, west of the fifth meridian; township 21, range 1, township 23, range 2, township 21, range 6, and township 23, range 8, west of the sixth meridian.
		Resurvey in townships 20 and 21, range 29, west of the fifth meridian; township 21, range 1, township 23, range 2, township 21, range 6, township 23, range 8, and township 22, range 11, west of the sixth meridian.
Bridgland, M. P.	Calgary, Alta.	Subdivision of part of the northeast quarter of section 18, township 24, range 1, west of the fifth meridian.
		Miscellaneous surveys in townships 7 and 8, range 31 and township 13, range 32, west of the principal meridian; townships 5 and 7, range 19, township 5, range 20, township 9, range 23, and township 15, range 26, west of the second meridian; township 12, range 12, and township 18, range 14, west of the third meridian; township 10, range 14, township 10 and 11, range 19, township 10, range 20, townships 9, ranges 22 and 23 and township 21, range 27, west of the fourth meridian; townships 24 and 31, range 1, and township 24, range 2, west of the fifth meridian. Survey of burial plot for R. N. W. M. Police in township 7, range 29, west of the third meridian.
		Triangulation surveys in the railway belt of British Columbia.
Brownlee, J. H.	Vancouver, B.C.	Survey of timber berth No. 529 in township 4 range 28, west of the sixth meridian, and block A in the south half of section 2 township 5, range 5, west of the seventh meridian.
Burgess, E. L.	Ottawa, Ont.	Resurvey and levelling in township 55, range 22, west of the fourth meridian.
Campbell, A. J.	Calgary, Alta.	Examination of land in the New Westminster district for the purpose of classification into fruit land, farming land, grazing land, timber land and worthless land.

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APPENDIX No. 1.—*Continued.*

SCHEDULE of Surveyors employed and work executed by them from April 1, 1910, to March, 31, 1911.—*Continued.*

Surveyor.	Address.	Description of Work.
Carson, P. A.	Ottawa, Ont.	Miscellaneous resurveys in townships 21, ranges 3 and 4, township 22, range 6, townships 23, ranges 7 and 11, township 27, range 14, township 31, range 16, township 34, range 18, township 45, range 22 and township 46, range 23, west of the second meridian; townships 43 and 43A, range 2, townships 34 and 43, range 3, township 39, range 4, townships 33 and 49, range 5, township 47, range 16, townships 39 and 40, range 22, townships 37, ranges 23 and 24, townships 37 and 47, range 25, and township 48, range 27 west of the third meridian. Investigation in township 43, range 2, township 33, range 3, township 38, range 4, townships 33 and 50, range 5 and townships 37, ranges 25 and 26, west of the third meridian. Traverse in township 21, range 4, township 34, range 18, townships 37, 38 and 42, range 21, townships 38 and 39, range 22 and township 38, range 23, west of the second meridian; townships 34 and 36, range 2, township 34, range 3, township 33, range 6, township 39, range 14, township 43, range 16, and township 40, range 26, west of the third meridian. Resurvey of 'lot 1 group 267' in Red Pheasant Indian reserve in township 41, range 15, west of the third meridian.
Cautley, R. H.	Edmonton, Alta.	Contract No. 30 of 1910. Subdivision of townships 55 and 56, range 17, townships 55, ranges 18, 19 and 20, and the north third of townships 54, ranges 17, 18, 19 and 20, west of the fifth meridian.
Chilver, C. A.	Walkerville, Ont.	Contract No. 17 of 1910. Subdivision of township 69, range 15, townships 68 and 69, ranges 16 and 17, and township 67, range 18, west of the fourth meridian.
Christie, W.	Prince Albert, Sask.	Survey of the eighteenth base line across ranges 1 to 12, and the twentieth base line across ranges 1 to 9, west of the fourth meridian.
Coates, P. C.	Whaletown, B.C.	Survey of timber berth No. 356 in townships 23 and 24, range 1, west of the sixth meridian.
Côté, J. L.	Edmonton, Alta.	Contract No. 19 of 1910. Subdivision of townships 68 and 69, ranges 21, 22 and 23, west of the fourth meridian.
Cumming, A. L.	Cornwall, Ont.	Survey of township 52, range 26, and part survey of townships 49, 50 and 51, range 25, and township 51, range 26, west of the fifth meridian. Traverse in township 50, range 26, townships 49 and 50, range 27, townships 47, 48 and 49, range 28, west of the fifth meridian, and township 47, range 1, west of the sixth meridian.

2 GEORGE V., A. 1912

APPENDIX No. 1.—*Continued.*

SCHEDULE of Surveyors employed and work executed by them from April 1, 1910, to March, 31, 1911.—*Continued.*

Surveyor.	Address.	Description of Work.
Davies, T. A.	Edmonton, Alta.	Contract No. 24 of 1910. Subdivision of townships 61, 62 and 63, ranges 21 and 22, west of the fourth meridian.
Deans, W. J.	Brandon, Man.	Subdivision in townships 25 and 26, ranges 20 and 21, west of the fifth meridian; townships 23 and 24, ranges 7 and 8, and township 22, range 10, west of the sixth meridian. Traverse in townships 25 and 26, range 21, west of the fifth meridian; township 24, range 7, townships 23 and 24, range 8 and township 22, range 10, west of the sixth meridian. Resurvey in townships 25 and 26, range 21, west of the fifth meridian; townships 21 and 22, range 10, west of the sixth meridian.
Dumais, P. T. C.	Hull, Que.	Contract No. 20 of 1910. Subdivision of townships 64, 65 and 66, range 16 and townships 65 and 66, range 17, west of the fourth meridian. Survey of timber berth No. 1243 in townships 45 and 46, range 7, west of the fifth meridian.
Ducker, W. A.	Winnipeg, Man.	Survey of the east outlines of township 40, range 28, townships 38, 39 and 40, range 29 and townships 39 and 40, range 30, and the south outlines of townships 39, ranges 30, 31 and 32, west of the principal meridian.
Engler, C.	Ottawa, Ont.	Survey of the north boundary of Alberta across Slave river; survey of Smith Landing settlement on Slave river.
Fairchild, C. C.	Brantford, Ont.	Contract No. 27 of 1910. Subdivision of townships 63, 64, 65, 66 and part of 62, range 1, and township 65, and the east outlines of townships 67 and 68, range 2, west of the fifth meridian.
Fawcett, A.	Gravenhurst, Ont.	Contract No. 11 of 1910. Subdivision of townships 54, 55, 56 and 57, range 22, townships 57 and 58, and the east outlines of townships 59 and 60, range 23, west of the third meridian.
Findlay, A.	Winnipeg, Man.	Contract No. 28 of 1910. Subdivision of townships 62, 63 and 64, range 2, and townships 62 and 63, range 3, west of the fifth meridian. Survey of blocks 1 and 2 of timber berth No. 1015 situated on the east shore of Lake Winnipeg near Bloodvein Bay, Man. and blocks 1 and 2 of timber berth No. 1134 situated on Bloodvein river, Man.
Fontaine, L. E.	Lévis, Que.	Inspection of contracts Nos. 9, 10, 16, 22, 23 and 25 of 1909; reinspection of contract No. 12 and additions to Nos. 18 and 25 of 1908. . Miscellaneous resurveys in townships 55 and 56, range 7, townships 54, ranges 8 and 12 and township 52, range 22, west of the fifth meridian.

SESSIONAL PAPER No. 25

APPENDIX No. 1.—Continued.

SCHEDULE of Surveyors employed and work executed by them from April 1, 1910, to March, 31, 1911.—Continued.

Surveyor.	Address.	Description of Work.
Francis, J.	Portage la Prairie, Man.	Subdivision surveys in township 45, range 20, townships 44 and 45, range 21, township 49, range 23, townships 48 and 49, range 24 and townships 48 and 50, range 25, west of the fifth meridian.
Green, T. D.	Ottawa, Ont.	Contract No. 34 of 1910. Subdivision of township 31, range 6, townships 29, 31 and 32, range 7, and townships 40, ranges 8 and 9, west of the fifth meridian.
Hawkins, A. H.	Listowel, Ont.	Survey of the twenty-first base line across ranges 1 to 18, west of the fifth meridian. Miscellaneous surveys in townships 29, ranges 31 and 32, west of the principal meridian; township 45, range 4, township 48, range 22 and township 51, range 27, west of the fourth meridian. Traverse in township 58, range 11, township 53, range 25 and in township 80, range 26, west of the fourth meridian; townships 47 and 52, range 1, west of the fifth meridian.
Heathcott, R. V.	Edmonton, Alta.	Contract No. 31 of 1910. Subdivision of townships 54 and 55, range 21, the south two-thirds of township 54, range 22, and the north two-thirds of townships 51, ranges 18, 19, 20, 21, 22 and 23, and survey of the east outlines of townships 56, ranges 21 and 22, west of the fifth meridian.
Holcroft, H. S.	Toronto, Ont.	Contract No. 12 of 1910. Subdivision of townships 57, 58 and 59, range 24, and townships 57, 58, 59 and 60, range 25, and survey of the east outline of township 60, range 24, west of the third meridian.
Hopkins, M. W.	Edmonton, Alta.	Contract No. 17 of 1910. Subdivision of townships 65 and 66, ranges 1, 2, 3, 4 and 5, and survey of the east outlines of townships 67 and 68, ranges 2, 3, 4, 5 and 6, west of the fourth meridian.
Hubbell, E. W.	Ottawa, Ont.	Inspection of contract No. 32 of 1907, contracts Nos. 13, 17 and part of 19 of 1909, and contracts Nos. 4, 5, 6 and 7 of 1910. Resurvey in township 48, range 21, and township 49, range 27, west of the second meridian. Traverse in townships 42, ranges 9, 10, 13 and 14, townships 52 and 53, ranges 12 and 13, and township 49, range 26, west of the second meridian.
Johnson, A. W.	Kamloops, B.C.	Survey of villa lots at Woodhaven on north arm of Burrard Inlet.
Keith, H. P.	Edmonton, Alta.	Survey of timber berth No. 1705 in townships 50 and 51, ranges 22 and 23, west of the fifth meridian, timber berth No. 1706 in township 51, range 22, west of the fifth meridian, and of timber berth No. 1707 in township 50, range 23, west of the fifth meridian.

2 GEORGE V., A. 1912

APPENDIX No. 1.—*Continued.*

SCHEDULE of Surveyors employed and work executed by them from April 1, 1910, to March, 31, 1911.—*Continued.*

Surveyor.	Address.	Description of Work.
Kimpe, M.	Edmonton, Alta.	Contract No. 15 of 1910. Subdivision of townships 49, 50 and 51, range 8, townships 50 and 51, ranges 9 and 10, and part of township 52, range 9, and survey of the east outlines of townships 49, ranges 9, 10 and 11, west of the fifth meridian.
Kirk, J. A.	Revelstoke, B.C.	Survey of timber berth No. 401 in townships 29, ranges 21 and 22, west of the fifth meridian, timber berth No. 415 in townships 30 and 31, range 30, west of the fifth meridian, and of timber berth No. 416 in township 30, range 20, west of the fifth meridian.
Kitto, F. H.	Ottawa, Ont.	Miscellaneous resurveys in St. Albert settlement and in townships 53, ranges 25 and 26, west of the fourth meridian.
Knight, R. H.	Edmonton, Alta.	Contract No. 26 of 1910. Subdivision of townships 65, 66, 67 and 68, range 26 and townships 63, 64, 65, 66, 67 and 68, range 27, west of the fourth meridian.
Lang, J. L.	Sault Ste. Marie, Ont.	Subdivision in townships 5, 6 and 7, range 4, and townships 7 and 8, range 5, west of the fifth meridian. Resurvey in townships 5, 7 and 8, range 1, township 5, range 2, and townships 6 and 7, range 3, west of the fifth meridian.
Laurie, R. C.	Battleford, Sask.	Contract No. 35 of 1910. Subdivision of townships 54, 55 and 56, range 23, west of the third meridian.
Lighthall, A.	Ottawa, Ont.	Survey in townships 3 and 4, range 3, west of the seventh meridian; townships 18, 21, 40 and 41, east of the coast meridian; township 39, west of the coast meridian. Traverse in township 4, range 3 and township 6, range 7, west of the seventh meridian; townships 40 and 41, east of the coast meridian. Resurvey in townships 3 and 4, range 3, west of the seventh meridian; townships 18, 21, 40 and 41, east of the coast meridian; township 39, west of the coast meridian. Survey of timber berth No. 535, in township 39, west of the coast meridian, timber berth No. 536, in township 40, east of the coast meridian, and timber berth No 537, in township 6, range 5, west of the seventh meridian.
Loneragan, G. J.	Buckingham, Que.	Inspection of contract No. 26 of 1909, and contracts Nos. 16, 17, 18, 19, 21, 23, 24 and 34 of 1910. Resurvey in township 53, range 3, township 68, range 16, township 54, range 21, township 53, range 23, and townships 54, ranges 27 and 28, west of the fourth meridian. Traverse in township 53, range 3, townships 51, ranges 6 and 7, townships 64 and 65, range 22, townships 52 and 53, range 26, and townships 53 and 54, range 27, west of the fourth meridian.

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APPENDIX No. 1.—*Continued.*

SCHEDULE of Surveyors employed and work executed by them from April 1, 1910, to March, 31, 1911.—*Continued.*

Surveyor.	Address.	Description of Work.
		Resurvey of Lac la Biche settlement in township 68, range 16, west of the fourth meridian.
Miles, C. F.	Toronto, Ont.	Reinspection of contract No. 8 of 1909; inspection of contracts Nos. 8, 9, 10, 11, 12, 13 and 35 of 1910.
		Resurvey in township 49, range 24, and townships 48, ranges 27 and 28, west of the second meridian; township 48, range 1, townships 14 and 15, range 25 and townships 13 and 14, range 30, west of the third meridian; townships 13 and 14, range 1, west of the fourth meridian.
		Traverse in townships 48 and 49, range 24, and townships 48, ranges 27 and 28, west of the second meridian; township 15, range 25, west of the third meridian; townships 13 and 14, range 1, west of the fourth meridian.
Mitchell, B. F.	Edmonton, Alta.	Contract No. 21 of 1910. Subdivision of township 63, range 16, and townships 61, 62, 63 and 64, range 17, west of the fourth meridian.
Montgomery, R. H.	Prince Albert, Sask.	Contract No. 5 of 1910. Subdivision of township 51, range 5, townships 51 and 52, range 6, townships 50, 51, 52 and 53, range 7, and townships 49, 50, 51 and 52, range 8, west of the third meridian.
Morrier, J. E.	Ottawa, Ont.	Contract No. 4 of 1910. Subdivision of townships 44, ranges 7, 8, 9 and 10, and the northerly two-thirds of township 45, range 3, west of the second meridian.
McCaw, R. D.	Calgary, Alta.	Examination of land in the Kamloops district for the purpose of classification into fruit land, farming land, grazing land, timber land, and worthless land.
McFarlane, J. B.	Toronto, Ont.	Subdivision in townships 39 and 40, range 16, township 39, range 17, township 40, range 18, township 41, range 19, township 44, range 21, townships 45 and 46, range 22, township 46, range 23 and township 50, range 26, west of the fifth meridian.
McFarlane, W. G.	Toronto, Ont.	Contract No. 33 of 1910. Subdivision of township 83, range 23, and the parts north of Peace river of townships 83, ranges 21 and 22, and township 82, range 23; survey of the east outlines of townships 84, ranges 22, 23 and 24, all west of the fifth meridian; subdivision of townships 81 and 82, range 1, townships 81, ranges 2 and 3, township 70, range 9, the west half of township 72 and the northerly two-thirds of the west half of township 71, range 2, the northerly two-thirds of township 70 and the southerly third of townships 71, ranges 7 and 8, and the southerly third of township 71, range 9, survey of the north outline of township

2 GEORGE V., A. 1912

APPENDIX No. 1.—*Continued.*

SCHEDULE of Surveyors employed and work executed by them from April 1, 1910, to March, 31, 1911.—*Continued.*

Surveyor.	Address.	Description of Work.
		84, range 1, and east outlines of townships 83 and 84, range 2, and townships 69, ranges 7, 8 and 9, all west of the sixth meridian. Traverse in township 82, range 26, west of the fifth meridian and in township 71, range 3, west of the sixth meridian. Survey of blocks 1 and 2 of timber berth No. 1272 in Peace river district, Alberta.
McGrandle, H.	Wetaskiwin, Alta.	Contract No. 29 of 1910. Subdivision of townships 52, ranges 13 and 14, township 56, range 15, townships 55 and 56, and the north third of township 54, range 16, west of the fifth meridian.
McMillan, Geo.	Ottawa, Ont.	Survey of the sixteenth base line across ranges 5 to 13, the seventeenth base line across ranges 9 to 14, and the twentieth base line across ranges 13 to 17 west of the sixth meridian.
McNaughton, A. L.	Cornwall, Ont.	Subdivision in townships 45 and 46, range 18, townships 46 and 47, range 19, township 47, range 20, townships 48 and 49, range 21, township 49, range 22, and survey of the east outlines of townships 48, ranges 19 and 20, west of the fifth meridian. Survey of timber berth No. 1709 in township 53, range 10, west of the fifth meridian.
Ogilvie, W.	Ottawa, Ont.	Survey of a water-power site for the city of Prince Albert at Cole falls on Saskatchewan river.
O'Hara, W. F.	Ottawa, Ont.	Resurvey in townships 2, ranges 7, 8 and 19, townships 1 and 2, range 20, township 1, range 27, townships 1 and 2, range 29 and township 1, range 30, west of the fourth meridian. Survey in the town of Pincher Creek and of villa lots around Waterton lakes.
Ord, L. R.	Hamilton, Ont.	Contract No. 22 of 1910. Subdivision of townships 61, 62, 63, 64 and 65, range 18, west of the fourth meridian.
Phillips, H. G.	Saskatoon, Sask.	Resurvey in township 23, range 7, west of the third meridian.
Plunkett, T. H.	Toronto, Ont.	Survey in townships 19 and 20, range 5, townships 19, ranges 6 and 7, townships 23, ranges 9 and 10, townships 22 and 23, range 11, township 23, range 12, townships 21, 22 and 23, range 13, townships 22 and 23, range 25. Traverse in townships 19 and 20, range 5 and townships 21, 22 and 23, range 13, west of the sixth meridian. Resurvey in township 23, range 10, townships 22 and 23, range 11, township 23, range 12, townships 21 and 23, range 13, townships 21, ranges 14 and 24, and townships 22 and 23, range 25, west of the sixth meridian.

SESSIONAL PAPER No. 25

APPENDIX No. 1.—*Continued.*

SCHEDULE of Surveyors employed and work executed by them from April 1, 1910, to March, 31, 1911.—*Continued.*

Surveyor.	Address.	Description of Work.
Ponton, A. W.	Edmonton, Alta.	Survey of the fifth meridian from the north-east corner of township 106 to the north-east corner of township 112; survey of the twenty-eighth base line across ranges 1 to 17, the twenty-ninth base line across range 1, part subdivision of township 109, range 10, west of the fifth meridian, and the production of the principal meridian across Lake Winnipeg from the northeast corner of section 12 township 35 to the northeast corner of township 48.
Proudfoot, H. B.	Saskatoon, Sask.	Survey of block 24 of timber berth No. 1048 near Green lake, berth No. 1050 on the shores of Namew lake, Goose lake and Amish lake, blocks 1 and 2 of berth No. 1237 northeast of Hudson Bay Junction, and berth No. 1672 in township 43, range 27, west of the principal meridian.
Reilly, W. R.	Regina, Sask.	Traverse of Swan lake in township 10, range 8, west of the second meridian.
Robinson, E. W.	Ottawa, Ont.	Survey of the eighth base line across ranges 1 to 5, east of the principal meridian; survey of the principal meridian from the eighth base line to Lake Winnipeg; survey of the ninth base line across ranges 1 to 7, west of the principal meridian; survey of the fifteenth base line from the northeast corner of section 35, range 21, west of the principal meridian, to the second meridian; survey of the second meridian from the fifteenth base line to the northeast corner of township 61.
Rolfson, O.	Walkerville, Ont.	Subdivision in townships 43 and 44, range 20 and township 44, range 21, west of the fifth meridian.
Ross, J. E.	Kamloops, B.C.	Survey in townships 19, ranges 13 and 14, township 22, range 17, townships 17, 18, 19, 21 and 22, range 18, townships 21 and 22, range 19, townships 21, 22, 23 and 24, range 20, townships 19, 22, 23 and 24, range 21, townships 19, 20, 22 and 23, range 22 and township 20, range 23, west of the sixth meridian. Traverse in township 22, range 17, townships 18, 19 and 22, range 18, township 21, range 19, township 22, range 20 and townships 22, 23 and 24, range 21, west of the sixth meridian. Resurvey in township 22, range 17, townships 18, 20 and 21, range 18, townships 20 and 21, range 19, township 24, range 21 and township 22, range 22, west of the sixth meridian.
Roy, G. P.	Quebec, Que.	Contract No. 8 of 1910. Subdivision of townships 53, 54 and 55, range 17, and townships 53, 54, 55 and 56, range 18; survey of the east outline of township 56, range 17, west of the third meridian.

2 GEORGE V., A. 1912

APPENDIX No. 1.—*Continued.*

SCHEDULE of Surveyors employed and work executed by them from April 1, 1910, to March, 31, 1911.—*Continued.*

Surveyor.	Address.	Description of Work.
Saint Cyr, A.	Ottawa, Ont.	Survey of the third meridian from the north-east corner of township 60 to the northeast corner of township 64, and the seventeenth base line across ranges 1 to 12 west of the third meridian.
Saunders, B. J.	Edmonton, Alta.	Survey of the nineteenth base line across ranges 1 to 5 west of the fourth meridian.
Scott, W. A.	Galt, Ont.	Surveys in township 10, range 30, west of the fourth meridian; township 10, range 1, townships 11 and 13, range 2, township 8, range 3, and townships 10, 11 and 12, range 4, west of the fifth meridian. Resurvey in township 28, range 12 and township 16, range 13, west of the third meridian. Traverse in townships 27, ranges 17 and 18, west of the second meridian, and in townships 10 and 11, range 3, west of the fifth meridian. Survey of the north boundary of Peigan timber limit in township 9, range 30, west of the fourth meridian. Investigation in township 7, range 10, west of the second meridian.
Selby, H. W.	Died, Aug., 1910.	Settlement surveys at Athabaska Landing and McMurray. Traverse of part of Athabaska river from McMurray to Fort McKay.
Seymour, H. L.	Edmonton, Alta.	Contract No. 23 of 1910. Subdivision of townships 61, 62 and 63, ranges 19 and 20, west of the fourth meridian.
Smith, D. A.	Claude, Ont.	Survey in township 25, range 20, west of the fifth meridian; townships 24, 25 and 26, range 7, and townships 25 and 26, range 8, west of the sixth meridian. Traverse in townships 25, ranges 7 and 8, west of the sixth meridian. Resurvey in township 25, range 20, west of the fifth meridian.
Smith, J. H.	Edmonton, Alta.	Contract No. 32 of 1910. Subdivision of township 77, range 19, township 76 and the north third of township 75, ranges 20 and 21, and townships 76 and 77 and the north third of township 75, ranges 22 and 23, west of the fifth meridian.
Steele, I. J.	Ottawa, Ont.	Contract No. 25 of 1910. Subdivision of townships 64, 65, 66, 67 and 68, range 25 and township 64, range 26, west of the fourth meridian.
Stewart, L. D. N.	Collingwood, Ont.	Survey in townships 22 and 23, ranges 9 and 10, west of the sixth meridian. Traverse in township 23, range 9 and townships 22 and 23, range 10, west of the sixth meridian. Resurvey in township 23, range 9, west of the sixth meridian.
Stewart, W. M.	Saskatoon, Sask.	Contract No. 9 of 1910. Subdivision of townships 54, 55, 56 and 57, range 19, and townships 57, ranges 20 and 21, west of the third meridian.

SESSIONAL PAPER No. 25

APPENDIX No. 1.—Continued.

SCHEDULE of Surveyors employed and work executed by them from April 1, 1910, to March, 31, 1911.—Continued.

Surveyor.	Address.	Description of Work.
Stock, J. J.	Ottawa, Ont.	Contract No. 10 of 1910. Subdivision of townships 54, 55 and 56, ranges 20 and 21, west of the third meridian.
Street, P. B.	Toronto, Ont.	Survey in township 27, range 21, and townships 27 and 28, range 22, west of the fifth meridian; townships 22 and 23, range 1, townships 22, 23 and 24, range 2, and townships 26, ranges 7 and 8, west of the sixth meridian. Traverse in township 22, range 1, townships 22 and 24, range 2, and townships 26, ranges 7 and 8, west of the sixth meridian. Resurvey in townships 27, ranges 21 and 22, west of the fifth meridian; townships 22 and 23, range 1, and townships 26, ranges 7 and 8, west of the sixth meridian.
Teasdale, C. M.	Concord, Ont.	Contract No. 3 of 1910. Subdivision of townships 44, 46, 47, 48 and the north third of 45, range 11, west of the second meridian.
Thibandean, W.	Montreal, Que.	Reconnaissance survey of Winnipeg and English rivers to determine the most suitable location for storage reservoirs.
Tyrrell, J. W.	Hamilton, Ont.	Contract No. 2 of 1910. Subdivision of townships 26, 27, 29 and 30, range 1, townships 26, 27, 28, 29 and 30, range 2, and townships 26, ranges 3 and 4, east of the principal meridian.
Waddell, W. H.	Edmonton, Alta.	Contract No. 16 of 1910. Subdivision of township 65 and the south two-thirds of township 66, ranges 10, 11 and 12, and township 69, ranges 13 and 14, west of the fourth meridian. Survey of timber berth No. 1305 in townships 60 and 61, ranges 11 and 12, west of the fifth meridian.
Waldron, J.	Moosejaw, Sask.	Contract No. 18 of 1910. Subdivision of townships 68 and 69, ranges 18, 19 and 20, west of the fourth meridian.
Wallace, J. N.	Calgary, Alta.	Survey of the fourth meridian from the northeast corner of township 80 to the northeast corner of section 13, township 95.
Warren, Jas.	Walkerton, Ont.	Contract No. 7 of 1910. Subdivision of townships 52 and 53, range 14, township 53, range 15, and townships 53 and 54, range 16, west of the third meridian.
Watt, G. H.	Ottawa, Ont.	Contract No. 6 of 1910. Subdivision of townships 48 and 49, range 10, township 49, range 11, townships 50 and 51, ranges 12 and 13, and survey of the east boundary of township 52, range 12, west of the third meridian.
Williams, G. L.	Enderby, B.C.	Survey of blocks 4 and 5 of timber berth No. 253 near Revelstoke, B.C.
Woods, J. E.	Pincher Creek, Alta.	Traverse of Southfork river in township 6, range 3, west of the fifth meridian.

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APPENDIX No. 2.

SCHEDULE showing for each surveyor employed from April 1, 1910, to March 31, 1911, the number of miles surveyed of township section lines, township outlines, traverses of lakes and rivers and resurvey, also the cost of the same.

Surveyor.	Miles of section line.	Miles of outline.	Miles of traverse.	Miles of resurvey.	Total mileage.	Total cost.	Cost per mile.	By day work or by contract.
						\$	\$ cts.	
Akins, J. R.	82	18	9	11	120	8,662	72 19	Day.
Aylsworth, C. F.	26		1	185	212	9,652	45 53	"
Baker, J. C.	362	45	122		529	13,911	26 29	Contract.
Blanchet, G. H.	87		18	32	137	13,649	99 63	Day.
Bridgland, M. P.			23	31	54	1,378	25 52	"
Carson, P. A.			40	123	163	4,362	26 39	"
Cantley, R. H.	328	61		11	400	12,533	31 33	Contract.
Chilver, C. A.	281	18	62		361	9,830	27 23	"
Christie, W.		126			126	14,414	114 40	Day.
Côté, J. L.	272	18	63		353	9,883	28 00	Contract.
Cumming, A. L.	126	22	109		257	13,230	51 48	Day.
Davies, T. A.	286	30	36	3	355	10,171	28 65	Contract.
Deans, W. J.	100		31	31	162	10,802	66 68	Day.
Ducker, W. A.	17	32			49	4,785	97 65	"
Dumais, P. T. C.	234		132		366	8,487	23 19	Contract.
Fairchild, C. C.	257	44	64	9	374	10,458	27 96	"
Fawcett, A.	288	30	71		389	10,148	26 09	"
Findlay, A.	247	18	47		312	8,587	27 52	"
Francis, J.	106	21	30		157	11,037	70 30	Day.
Green, T. D.	278		46		324	9,045	27 91	Contract.
Hawkins, A. H.		109	13	25	147	14,519	98 77	Day.
Heathcott, R. V.	327	58	41		426	12,824	30 10	Contract.
Holcroft, H. S.	301	51	144		496	12,455	25 11	"
Hopkins, M. W.	466	117	62		645	17,107	26 52	"
Kimpe, M.	363	54	80		497	13,861	27 89	"
Knight, R. H.	290	36	60		386	10,633	27 60	"
Lang, J. L.	51	2	3	33	89	7,807	87 72	Day.
Laurie, R. C.	146	18	51		215	5,222	24 29	Contract.
Lighthall, A.	47		18	9	74	9,237	124 82	Day.
Mitchell, B. F.	247	24	71		342	9,073	26 53	Contract.
Montgomery, R. H.	480	50	197		727	18,140	24 95	"
Morrier, J. E.	202		65		267	6,788	25 42	"
McFarlane, J. B.	90	47	17	3	157	13,333	84 92	Day.
McFarlane, W. G.	537	99	91	48	775	18,224	23 51	Contract.
McGrandle, H.	252	9	2		263	7,933	30 16	"
McMillan, Geo.		114			114	28,472	249 75	Day.
McNaughton, A. L.	93	40	11		144	14,152	98 28	"
O'Hara, W. F.	24		10	237	271	8,015	29 58	"
Ord, L. R.	234		88		322	7,780	24 16	Contract.
Plunkett, T. H.	113		25	32	170	12,063	70 96	Day.
Pontou, A. W.	4	225		2	231	28,625	123 92	"
Robinson, E. W.	11	190		1	214	22,186	103 67	"
Rolfson, O.	63	14	25	4	106	13,350	125 94	"
Ross, J. E.	146		22	6	174	10,568	60 74	"
Roy, G. P.	326	38	58		422	12,522	29 67	Contract.
Saint-Cyr, A.	22	85			107	26,833	250 77	Day.
Saunders, B. J.		30			30	23,160	772 00	"
Scott, W. A.	61	6	7	29	103	7,677	74 53	"
Seymour, H. L.	288	30	50		368	10,345	28 11	Contract.
Smith, D. A.	70		6	16	92	10,218	111 06	Day.
Smith, J. H.	392	58	55		505	14,500	28 71	Contract.
Steel, I. J.	276	12	87		375	9,544	25 45	"
Stewart, L. D. N.	69		13	9	91	9,915	108 96	Day.
Stewart, W. M.	288	54	15		357	10,866	30 44	Contract.
Stock, J. J.	286	36	24		346	10,056	29 07	"
Street, P. B.	76		19	16	111	9,283	83 63	Day.
Teasdale, C. M.	202	18	14		234	7,042	30 10	Contract.
Tyrell, J. W.	468	41	46		558	15,528	27 83	"
Waddell, W. H.	326	48	196		570	13,345	23 41	"
Waldron, J.	273	18	71		362	9,971	27 55	"
Wallace, J. N.		88			88	27,065	307 54	Day.
Warren, Jas.	214	32	24		270	7,687	28 47	Contract.
Watt, G. H.	345	30	61	9	436	11,958	27 43	"
Woods, J. E.			12		12	211	17 58	Day.
	11,849	2,376	2,758	906	17,889	765,077		

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APPENDIX No. 3.

LIST of lots in the Yukon Territory, surveys of which have been received from April 1, 1910, to March 31, 1911.

GROUP No. 1.

Lot No.	Acres.	Surveyor.	Year of Survey.	Date of Approval.	Claimant.	Remarks.
45	346.86	C. S. W. Barwell	1909	Dec. 12, 1910.	Northern Light, Power and Coal Co.	Right of way for transmission line.

GROUP No. 2.

14	18.86	James Gibbon	1910	May 26, 1910.	N. A. T. & T. Co.	Surface Resurvey.
25	5.00	"	1910	Nov. 25, 1910.	W. E. Sprague	Surface Block 35
381	50.40	"	1907	Nov. 25, 1910.	E. Nichol <i>et al.</i>	Oro, Mineral claim.
382	44.50	"	1907	Nov. 25, 1910.	E. Nichol <i>et al.</i>	Bernice, M. C.
390	51.65	"	1908	Feb. 23, 1911.	Agnes J. Kinsey	Clara, M. C.
419	43.56	"	1909	July 15, 1910.	Jas. J. Lloyd	Sunrise, M. C.
439	51.64	"	1909	Nov. 25, 1910.	Ias. Cameron <i>et al.</i>	Hunker, M. C.
440	51.65	"	1909	Feb. 23, 1911.	Malcolm John Campbell <i>et al.</i>	Kitchener, M. C.
441	40.70	"	1909	Feb. 23, 1911.	"	Roberts, M. C.
447	36.50	"	1909	Feb. 23, 1911.	Jas. Cameron <i>et al.</i>	Summit, M. C.
448	47.74	"	1910	Nov. 25, 1910.	Chas. Lauder <i>et al.</i>	Rattler, M. C.
449	32.83	"	1909	Nov. 25, 1910.	James Cameron <i>et al.</i>	Le Roy, M. C.
453	38.58	"	1909	Nov. 25, 1910.	James Cameron	Florodora, M. C.
454	41.32	"	1909	June 2, 1910.	Malcolm John Campbell <i>et al.</i>	Eureka, M. C.
455	44.23	"	1909	Nov. 25, 1910.	Otto F. Kastner	Dawson, M. C.
459	51.65	"	1909	Nov. 25, 1910.	James Cameron <i>et al.</i>	Calumet, M. C.
460	42.70	"	1909	June 6, 1910.	F. H. Elliott	Welcome, M. C.
465	35.20	"	1909	June 6, 1910.	James Richard Irvine	Dundas, M. C.
466	42.53	"	1909	Feb. 23, 1911.	Chas. Lauder <i>et al.</i>	Eclipse, M. C.
467	19.38	"	1909	Nov. 25, 1910.	Robert Greaves <i>et al.</i>	Franklin, M. C.
476	11.35	"	1909	Nov. 25, 1910.	Malcolm John Campbell	Gold Run, M. C.
477	51.56	"	1910	Nov. 25, 1910.	W. O. Smith	Golden Age, M. C.
478	29.80	"	1910	Feb. 23, 1911.	H. H. Honnon <i>et al.</i>	Kenwood, M. C.
479	5.10	"	1910	Dec. 21, 1910.	Joseph Albert Segber	Mary fractional, M.C
480	9.30	"	1910	Dec. 21, 1910.	"	Rebecca fractional, M. C.
481	31.10	"	1910	Feb. 23, 1911.	H. H. Honnon <i>et al.</i>	Silver Knight, M. C.
482	32.70	"	1910	Feb. 23, 1911.	"	Tiger No. 2, M. C.
483	44.90	"	1910	Nov. 25, 1910.	Joseph Albert Segber	Broken Hill, M. C.
484	69.20	"	1910	"	Northern Light & Power Co.	Right of way.
503	36.69	N. A. Burwash	1909	June 15, 1910.	J. H. McConnell	Primrose, M. C.
504	27.53	"	1909	Nov. 25, 1910.	Jane S. Orrell <i>et al.</i>	Review, M. C.
505	44.44	"	1909	June 10, 1910.	"	Central, M. C.
506	50.34	"	1909	June 10, 1910.	"	Yellow Jacket, M.C.
507	47.74	N. A. Burwash	1909	June 10, 1910.	James Llyod <i>et al.</i>	Exchange, M. C.
508	51.65	"	1909	" 10, 1910.	"	Rosaline, M. C.
510	43.76	"	1909	" 10, 1910.	M. Campbell	Empire, M. C.
511	51.65	"	1909	" 10, 1910.	A. A. Knorr	Fearless, M. C.
512	32.90	"	1909	" 10, 1910.	G. H. Lawrence <i>et al.</i>	Mountain Maid, M.C
513	50.16	"	1909	Nov. 25, 1910.	D. R. Marshall	Maple Leaf, M. C.
514	35.95	"	1909	June 10, 1910.	David Bauer	Pacific, M. C.
515	26.00	"	1909	" 10, 1910.	Jane S. Orrell <i>et al.</i>	Tiger, M. C.
516	51.65	"	1909	" 10, 1910.	J. J. Lloyd <i>et al.</i>	B. C., M. C.
517	50.71	"	1909	May 31, 1910.	"	Deadwood, M. C.
518	51.65	"	1909	" 31, 1910.	"	Doloris, M. C.
519	48.57	"	1909	" 31, 1910.	"	O. K., M. C.
520	25.03	"	1909	June 10, 1910.	Joseph Fournier	Belle Chasse, M. C.
521	17.19	"	1909	" 10, 1910.	Louis Martin <i>et al.</i>	Chicoutimi, M. C.

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GROUP No. 5.

Lot No.	Acres.	Surveyor.	Year of Survey.	Date of Approval.	Claimant.	Remarks.
163	50.29	H. G. Dickson..	1909	Nov. 25, 1910..	D. C. Campbell.....	Bell, M. C.
164	46.28	" ..	1909	" 25, 1910 ..	Dan Gilles	Little May, M. C.
165	44.93	" ..	1909	" 25, 1910 ..	R. Unsworth.....	Caroline, M. C.
166	10.68	" ..	1909	" 25, 1910 ..	Gilbert Fowler	Black Diamond, M.C.
167	83.72	" ..	1909	Aug. 7, 1910..	A. E. Palmer.....	Palmer No. 1, M. C.
168	39.10	" ..	1909	" 7, 1910 ..	"	Skookum, M. C.
169	29.02	" ..	1910	" 7, 1910 ..	Ernest Burwash	Ruby, M. C.
172	51.59	" ..	1910	Nov. 29, 1910..	C. H. Johnston.....	Grafter Annex, M.C.
189	51.21	N. A. Burwash..	1909	June 10, 1910..	L. V. Wilson	Everrett, M. C.
197	153.67	" ..	1910	"	H. K. Burwash.....	Real Thing, M. C.
198	47.03	" ..	1910	June 10, 1910..	D. Ross.....	Rothsay, M. C.

GROUP No. 6.

60	9.82	H. G. Dickson..	1909	Nov. 25, 1910..	W. S. McGee.....	Blue Grouse, M. C.
104	51.65	" ..	1909	" 25, 1910 ..	H. E. Porter.....	Empire, M. C.
105	160.00	" ..	1909	" 25, 1910 ..	"	Surface Lot.
106	34.63	" ..	1909	" 25, 1910 ..	"	Excelsior, M. C.
107	51.65	" ..	1909	" 25, 1910 ..	"	Porter, M. C.
109	51.65	" ..	1909	" 25, 1910 ..	Edward A. Dixon.....	Evening, M. C.
110	50.19	" ..	1909	July 7, 1910..	T. H. Kerruish.....	Little Jack, M. C.
111	45.94	" ..	1909	Nov. 25, 1910..	Samuel E. Chambers ..	Shamrock, M. C.
112	51.65	" ..	1910	"	H. W. Vance.....	North Star, M. C.
113	51.53	" ..	1910	"	"	Lucky Ell, M. C.
114	51.22	" ..	1910	"	Elvin J. Edwards.....	Venus No. 3, M. C.

GROUP No. 10.

18	47.37	H. G. Dickson..	1910	Angus S. Fraser.....	Remy, M. C.
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SESSIONAL PAPER No. 25

APPENDIX No. 4.

List of miscellaneous surveys in the Yukon Territory, returns of which have been received from April 1, 1910, to March 31, 1911.

Year.	Surveyor.	Description of Survey.
1910	H. G. Dickson.....	Reference traverse from Carmack up Nordenskiöld valley.
1906	James Gibbon.....	Base line on Guysboro Gulch, a tributary of Klondike river.
1906	".....	" Belcher " " " "
1906	".....	" Rabbitt " " " "
1906	".....	" Twenty Gulch " " Hunker creek.
1906	".....	" Twenty one Gulch " " "
1906	".....	" Hattie " " "
1906	".....	" Thirty-seven " " "
1907	".....	Base and side lines on part of Sixtymile river, a tributary of Yukon riv.
1907	".....	" " Bedrock creek, a tributary of Sixtymile river.
1907	".....	" " Big Gold creek, a tributary of Sixtymile river.
1907	".....	" " Glacier creek, a tributary of Big Gold creek.
1910	C. W. MacPherson.....	Base line on Goring Gulch, a tributary of Klondike river.

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APPENDIX No. 5.

STATEMENT of work executed in the office of the Chief Draughtsman:—

Letters of instruction to surveyors.. . . .	335
Progress sketches received and filed.. . . .	1,206
Declarations of settlers received and filed.. . . .	123
Returns of timber berths received.. . . .	48
Plans received from surveyors.. . . .	509
Field books received from surveyors.. . . .	760
Timber reports received.. . . .	278
Observations for magnetic declination received.. . . .	987
Dip observations received.. . . .	94
Total force observations received.. . . .	72
Preliminary township plans prepared.. . . .	355
Sketches made.. . . .	4,033
Maps and tracings made.. . . .	134
Plans of Yukon lots received.. . . .	71
Plans of miscellaneous Yukon surveys received.. . . .	13
Yukon lots reduced to 40 chains to 1 inch and plotted on group plans.. . . .	45
Returns of surveys examined—	
Township subdivision.. . . .	372
Township outline.. . . .	260
Road plans.. . . .	229
Railway plans.. . . .	55
Yukon lots.. . . .	118
Miscellaneous Yukon surveys.. . . .	21
Mineral claims.. . . .	16
Timber berths.. . . .	64
Correction and other miscellaneous surveys.. . . .	165
Township plans compiled.. . . .	918
Topographical township plans compiled.. . . .	156
Townsite settlement and other plans compiled.. . . .	15
Proofs of plans examined.. . . .	108
Township plans printed.. . . .	740
Townsite and settlement plans printed.. . . .	13
Miscellaneous plans printed.. . . .	197
Descriptions written.. . . .	13
Pages of field notes copied.. . . .	627
Applications for various information dealt with.. . . .	2,863
Files received and returned.. . . .	2,469
Letters and memoranda drafted.. . . .	8,355
Books received from Record Office and used in connection with office work.. . . .	4,969
Books returned to Record Office.. . . .	4,869
Plans other than printed township plans received from Record Office and used in connection with office work.. . . .	654
Plans returned to the Record Office.. . . .	673
Volumes of plans received from Record Office and used in connection with office work.. . . .	92
Volumes of plans returned to Record Office.. . . .	85
Books sent to Record Office to be placed on record.. . . .	772
Plans other than township plans sent to Record Office to be placed on record.. . . .	273

SESSIONAL PAPER No. 25

Sectional maps (3 miles to 1 inch)—

Revised..	56
Reprinted..	38

Sectional maps (6 miles to 1 inch)—

Reprinted..	46
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APPENDIX No. 6

List of new editions of Sectional Maps issued from April 1, 1910, to March 31, 1911.

Scale 3 miles to 1 inch.

No.	Name.	No.	Name.	No.	Name.	No.	Name.
15	Lethbridge	115	Blackfoot.....	172	Fairford	313	Brulé.....
16	Milk River.....	116	Rainy Hills.....	215	Red Deer.....	314	St. Ann.
17	Cypress	117	Red Deer Forks	217	Tramping Lake.....	315	Edmonton.....
19	Willowbunch	118	Rush Lake	218	Saskatoon	317	Fort Pitt.....
20	Souris	162	Seymour.....	219	Humboldt.....	364	Fort Assiniboine.....
66	Medicine Hat.....	164	Morley.....	220	Nut Mountain.....	365	Victoria.....
67	Maple Creek.....	166	Sounding Creek.....	263	Jasper.....	415	Tawatinau
69	Moosejaw	167	Bad Hills.....	265	Peace Hills.....	416	La Biche.....
73	Winnipeg	168	The Elbow	267	Battleford		
113	Spillimacheen. .	171	Duck Mountain.....	269	Carlton.....		

Scale 6 miles to 1 inch.

No.	Name.	No.	Name.	No.	Name.	No.	Name.
14	Pincer Creek	71	Cross Lake	168	The Elbow	313	Brulé.....
15	Lethbridge.....	113	Spillimacheen	171	Duck Mountain.....	314	St. Ann.....
16	Milk River.....	115	Blackfoot	172	Fairford.....	315	Edmonton.....
17	Cypress	116	Rainy Hills.....	215	Red Deer.....	316	Vermilion.....
19	Willowbunch.....	117	Red Deer Forks	216	Sullivan Lake.....	317	Fort Pitt.....
22	Dufferin.....	120	Qu'Appelle.....	217	Tramping Lake.....	364	Fort Assiniboine.....
66	Medicine Hat.....	164	Morley.....	220	Nut Mountain.....	365	Victoria.....
67	Maple Creek.....	165	Rosebud	263	Jasper.....	415	Tawatinau
68	Swift Current	166	Sounding Creek.....	264	Brazeau	416	La Biche.....
73	Winnipeg	167	Bad Hills.....	265	Peace Hills.....		

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APPENDIX No. 7.

STATEMENT of work executed in the Photographic Office from April 1, 1910, to March 31, 1911.

	3½ x 3½	3½ x 5½	5 x 7	8 x 10	10 x 12	11 x 14	16 x 18	18 x 20	20 x 24	24 x 30	30 x 36	36 x 42	42 x 48	Total
Dry plate negatives.....			684	2		24								1,540
Bromide prints.....		830	35	29	31	45	139	67	26	20	46	37	2	471
Solito prints.....		1,923	4,373	473	1	32								6,802
Velox prints.....		8,438	1,256			76								4,770
Artama prints.....			1,545	228		44								1,867
Vandyke prints.....			43	9	10	113	73	186	121	50	51	79	14	749
Blue prints.....				4	32	17	34	51	66	125	18	58	21	426
Leautern transparencies.....	465						56							465
Photographs mounted.....		495	282	60			96	159	35					806
Wet plate negatives.....				83		171	986	1,134	8					1,435
Photo-litho plates.....														1,142
	465	6,669	8,268	888	74	522	1,272	1,597	257	195	115	174	37	20,563

SESSIONAL PAPER No. 25

APPENDIX No. 8.

STATEMENT of work executed in the Lithographic Office from April 1, 1910, to March 31, 1911.

Month.	MAPS.			TOWNSHIPS.			FORMS.		
	No.	Copies.	Im-pressions.	No.	Copies.	Im-pressions.	No.	Copies.	Im-pressions.
1910.									
April.....	9	8,085	22,190	.....	.....	.....	4	339	339
May.....	22	191,125	716,575	63	12,600	13,800	3	1,070	1,070
June.....	16	6,811	7,036	138	27,600	27,800	.....	.....	.....
July.....	4	900	900	12	2,400	2,400	2	700	700
August.....	15	6,725	11,750	.....	.....	.....	9	11,475	11,725
September.....	5	2,075	2,225	75	15,000	15,000	5	3,380	3,480
October.....	23	9,500	9,575	96	19,200	20,300	6	1,590	1,590
November.....	30	11,800	11,875	164	32,800	33,000	7	11,635	11,635
December.....	4	725	725	.....	.....	.....	1	300	300
1911.									
January.....	5	935	1,145	51	10,200	10,200	6	7,130	9,630
February.....	11	73,075	205,025	20	3,804	4,204	7	25,290	25,200
March.....	17	107,650	284,475	121	24,200	24,200	5	10,700	12,700
Total.....	161	419,406	1,273,496	740	147,804	150,904	55	73,519	78,369

RECAPITULATION.

	No.	Copies.	Impressions	Cost.
				\$ cts.
Maps.....	161	419,406	1,273,496	3,356 68
Townships.....	740	147,804	150,904	5,301 20
Forms.....	55	73,519	78,369	1,032 12
Grand total.....	956	640,729	1,502,769	9,690 00

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APPENDIX No. 9.

LIST of employees of the Topographical Surveys Branch at Ottawa, giving the name, classification, duties of office and salary of each. (Metcalfe street, corner of Slater.)

Name.	CLASSIFICATION.		Duties of Office.	Salary.
	Division	Sub-division.		
				\$ cts.
Deville, E., D.T.S., LL.D	1	A	Surveyor General.....	3,550 00
	CORRESPONDENCE			
Brady, M.....	1	B	Secretary.....	2,300 00
Cullen, M. J.....	3	A	Stenographer.....	1,200 00
Moran, J. F.....	3	A	Typewriter and clerk.....	900 00
Williams, E. R.....	3	A	Correspondence clerk.....	900 00
Addison, W. G.....	3	B	Typewriter.....	750 00
Pegg, A.....			Messenger.....	800 00
O'Meara, M. T.....			".....	500 00
Pick, A. C.....			".....	500 00
	ACCOUNTS.			
Hunter, R. H.....	2	A	Accountant.....	2,050 00
Wilkinson, Percy.....	3	A	Asst. accountant.....	1,050 00

Chief Draughtsman's Office—General direction and supervision of the technical work.

Symes, P. B.....	1	B	Chief draughtsman.....	2,350 00
Shanks, T., B.A.Sc., D.L.S.....	1	B	Asst. chief draughtsman...	2,450 00

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Chief Draughtsman's Office, First Section—Survey Instructions and General Information.

Name.	CLASSIFICATION.		Duties of Office.	Salary.
	Division	Sub-division.		
				8 cts.
Brown, T. E., B. A.	1	B	Chief of Section.....	2,450 00
Umbach, J. E., Grad. S.P.S., D.L.S.	2	A	Asst. chief of section...	1,850 00
Barber, H. G., Grad. S.P.S.	2	A	" "	1,850 00
Rice, F. W., Grad. School of Mining	2	A	" "	1,850 00
Belleau, J. A., D. L. S.	2	A	" "	1,850 00
Sylvain, J.	2	A	" "	1,650 00
McRae, A. D., B. A., B. Sc.	2	B	Draughtsman.....	1,350 00
Carroll, M. J., Grad. S.P.S.	2	B	"	1,550 00
Grant, A. W., B. A.	2	B	"	1,350 00
Peaker, W. J., Grad. S. P. S.	2	B	"	1,250 00
Grant, A. M., B. Sc.	2	B	"	1,250 00
Milliken, J. B., B. A., B. Sc.	2	B	"	1,230 00
McMillan, J. P., B. E.	2	B	"	1,250 00
Cordukes, J. P., B. Sc.	2	B	"	1,150 00
Wadlin, L. N., B. Sc.	2	B	"	1,150 00
Hayward, H. E., B. Sc.	2	B	"	1,250 00
McCully, R. C., B. A.	2	B	"	1,000 00
Gagnon, J. N. H., B. A. Sc.	2	B	"	1,000 00
Roelton, E. C.	2	B	"	1,350 00
Holbrook, C. H.	2	A	Clerk.	950 00
Burkholder, E. L.	3	A	"	900 00

Chief Draughtsman's Office, Second Section—Surveys in Manitoba, Saskatchewan, Alberta and Yukon.

Nash, T. S., Grad. S.P.S., D.L.S.	1	B	Chief of Section.....	2,450 00
Burgess, E. L., Grad. S.P.S., D.L.S., O.L.S.	2	A	Asst. chief of section ...	1,850 00
Dennis, E. M., B. Sc.	2	A	" "	1,850 00
Elder, A. J., Grad. S.P.S., D.L.S.	2	A	" "	1,850 00
Henderson, F. D., Grad. S.P.S., D.L.S.	2	A	" "	1,850 00
Hill, S. N., Grad. S.P.S.	2	A	" "	1,850 00
Genest, P. F. X.	2	A	" "	1,850 00
Robertson, D. F., Grad. S.P.S.	2	A	" "	1,650 00
Sutherland, H. E., B. Sc.	2	B	Draughtsman.....	1,350 00
Kitto, F. H., D.L.S.	2	B	" "	1,450 00
McLennan, W. D.	2	B	" "	1,600 00
Roger, A., O.L.S.	2	B	" "	1,600 00
Spreckley, R. O.	2	B	" "	1,450 00
Goodday, Leonard.	2	B	" "	1,350 00
Bray, R. P.	2	B	" "	1,350 00
Harrison, E. W.	2	B	" "	1,250 00
Ault, H. W.	2	B	" "	1,250 00
Lytle, W. J.	2	B	" "	1,000 00
La Berce, E. E., M. A. Sc.	2	B	" "	1,000 00
Jones, G. S., Grad. S.P.S., O.L.S.	2	B	" "	1,000 00
Bradley, J. D.	2	B	" "	1,000 00
Dubuc, C. P., Q.L.S.	2	B	" "	1,000 00
Cagnat, G. H.	2	B	" "	1,000 00
Fournier, O. E.	2	B	" "	1,000 00
Ross, C. M., B. Sc.	2	B	" "	1,200 00
Macdonald, J. A.	3	B	Clerk.	800 00

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Chief Draughtsman's Office, Third Section—(Imperial Building, Queen street).
Copying plans for reproduction.

Name.	CLASSIFICATION.		Duties of Office.	Salary.
	Division	Sub-division		
				\$ cts.
Engler, Carl, B.A., D.L.S.	2	A	Chief of section.	2,000 00
May, J. E.	2	A	Asst. chief of section	1,850 00
O'Connell, J. R.	2	A	"	1,650 00
Monle, W. J.	2	B	Draughtsman	1,600 00
Helmier, J. D.	2	B	Clerk	1,650 00
Archambault, E.	2	B	"	1,050 00
Dawson, R. J.	2	B	"	1,050 00
Watters, James	3	A	Printer	1,200 00
Tremblay, A.	3	A	Clerk	900 00
Brown, A.	3	A	"	900 00
Ebbs, E. J.	3	A	"	900 00
Beaubien, A. H.	3	B	"	700 00
Baril, C.	3	B	"	700 00
Marchand, C. E.	3	B	Engrosser.	500 00

Chief Draughtsman's Office, Fourth Section—(Metcalf street, corner of Slater).
British Columbia surveys.

Rowan-Legg, E. L.	2	A	Chief of section.	2,000 00
Gillmore, E. T. B., Grad. R.M.C.	2	A	Asst. chief of section.	1,950 00
Lawe, H., D.L.S.	2	A	"	1,850 00
MacIlquham, W. L., B.Sc.	2	A	"	1,850 00
Morley, R. W.	2	A	"	1,850 00
Weld, W. E.	2	A	"	1,850 00
Wilson, E. E. D.	2	A	"	1,600 00
Osmond, H.	2	B	Draughtsman	1,250 00
Harris, K. D.	2	B	"	1,250 00

Chief Draughtsman's Office, Fifth Section—(Imperial Building, Queen street).
Mapping.

Smith, J.	1	B	Chief of section.	2,450 00
Begiu, P. A.	2	A	Asst. chief of section.	1,900 00
Fhndt, A. H.	2	A	"	1,650 00
Blanchet, A. E.	2	B	Draughtsman	1,600 00
Davies, T. E. S.	2	B	"	1,550 00
Perrin, V.	2	B	"	1,550 00
D'Orsonnens, A.	2	B	"	1,550 00
Davy, E.	2	B	"	1,350 00
Villeneuve, E.	2	B	"	1,050 00
Bergin, W.	2	B	"	1,050 00
Howie, Jas.	2	B	"	1,000 00
Purdy, W. A.	2	B	"	1,100 00
Brigley, J. H.	2	B	"	1,300 00

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Chief Draughtsman's Office Sixth Section—(Imperial Building, Queen street).
Scientific and Topographical Work.

Name.	CLASSIFICATION.		Duties of Office.	Salaries.
	Division	Sub-division		
				\$ cts.
Dodge, G. B., D.L.S.	1	B	Chief of section.	2,450 00
Cote, J. A., Grad. R.M.C.	2	A	Asst. chief of section.	1,600 00
Blanchard, J. F.	2	B	Draughtsman.	1,000 00
Chartrand, D. E., B. Sc.	2	B	"	1,050 00
Cousineau, A., B. Sc.	2	B	"	1,050 00
Dozois, L. O. R., Grad. R.M.C.	2	B	"	1,050 00
Fredette, J. F.	2	B	"	1,000 00
Hoar, C. M., B.Sc., D.L.S.	2	B	"	1,000 00
Roe, B. J.	2	B	"	1,000 00
Lynch, F. J.	3	B	Typewriter.	800 00
Watson, J. W.	3	B	Clerk	700 00

Geographic Board (Woods Building, Slater street).

Whitcher, A. H., F.R.G.S., D.L.S.	2	A	Secretary	2,100 00
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Photographic Office. (Metcalf street, corner Slater street).

Carruthers, H. K.	2	A	Process photographer.	1,850 00
Woodroffe, John	2	A	Chief "	1,850 00
Whitecomb, H. E.	3	A	Photographer.	1,200 00
Morgan, W. E.	3	A	"	1,150 00
Kilmartin, A.	3	A	Asst. photographer.	900 00
Devlin, A.	3	B	"	800 00
Quimet, E. G.	3	B	"	800 00

Lithographic Office (unclassified). (Metcalf street, corner Slater street).

Name.	Occupation.		Salaries.
Moody, A.	Foreman		\$25 00 per week.
Burnett, E.	Lithographer.		25 00 "
Thicke, C. R.	"		22 00 "
Deslauriers, J. H.	Transferrer		20 00 "
Bergin, J.	Printer		20 00 "
Thicke, H. S.	"		18 00 "
Boyle, S.	Stone polisher		14 00 "
Gagnon, J.	Press feeder		11 00 "
Kane, P.	"		8 00 "
Easton, H. M.	Printer.		18 50 "
Hare, E. H.	Asst. photographer.		14 00 "

2 GEORGE V., A. 1912

APPENDIX No. 10.

List of Dominion Land Surveyors who have been supplied with Standard Measures.

Name.	Address	Date of Birth.	Date of Appointment or of Commission.	Remarks.
Akins, James Robert.....	Kimburn, Ont.	Sept. 2, '76	Mar. 14, '10	
Allison, Calvin Bruce.....	South Woodlee, Ont.	June 16, '84	" 28, '10	
Ashton, Arthur Ward.....	Ottawa, Ont.	Nov. 5, '80	May 29, '08	
Austin, George Frederick.....	Not known		April 14, '72	
Aylen, John.....	North Bay, Ont.		May 29, '85	
Aylsworth, Charles Fraser.....	Madoc, Ont.	April 21, '62	" 13, '86	O. L. S.
Baker, James Clarence.....	Vermilion, Alta.	May 12, '78	" 18, '06	
Baker, Mason Hermon.....	St. Thomas, Ont.	July 9, '84	Aug. 6, '08	"
Bayne, George A.	Winnipeg, Man.	Oct. 25, '50	April 14, '72	M. L. S.
Beatty, David.....	Parry Sound, Ont.	Dec. 22, '42	" 14, '72	O. L. S.
Begg, William Arthur.....	Hamilton, Ont.	July 15, '82	June 8, '09	
Belanger, Phidime Roch Arthur	Ottawa, Ont.	Mar. 5, '53	May 17, '80	Inspector of Surveys, Topographical Surveys Branch, Dept. of the Interior.
Belleau, Joseph Alphonse.....	Ottawa, Ont.	Sept. 30, '56	May 15, '83	Topographical Surveys Branch, Dept. of the Interior.
Bemister, George Bartlett....	Winnipeg, Man.		June 11, '78	M. L. S., Engineering Dept. C. N. R.
Bennett, George Arthur.....	Elden, Ont.	May 18, '86	Aug. 23, '10	
Bigger, Charles Albert.....	Ottawa, Ont.	Aug. 15, '53	Mar. 30, '82	B. C. L. S., O. L. S., Assistant Superintendent Geodetic Survey.
Bingham, Edwin Ralph.....	Fort William, Ont.	— '78	Oct. 23, '06	O. L. S.
Blanchet, Guy Houghton.....	Ottawa, Ont.	Feb. 12, '84	Mar. 10, '10	
Boswell, Elias John.....	Not known		" 18, '03	" M. L. S.
Bourgeault, Armand.....	St. Jean Port Joli, Que.	Feb. 23, '58	" 29, '83	Q. L. S.
Bourgault, Charles Eugene....	" "	Sept. 6, '61	Feb. 21, '88	
Bourget, Charles Arthur.....	Lauson, Que.	Aug. 26, '51	May 14, '84	"
Bowman, Herbert Joseph.....	Berlin, Ont.	June 18, '65	Feb. 16, '88	O. L. S.
Brabazon, Alfred James.....	Ottawa, Ont.		May 13, '82	Boundary Survey, Dept. of the Interior.
Brady, James.....	Golden, B.C.	Nov. 24, '40	April 14, '72	O. L. S., B. C. L. S.
Bray, Samuel.....	Ottawa, Ont.	Nov. 5, '46	Nov. 14, '83	O. L. S., Chief Surveyor Dept. of Indian Affairs.
Bray, Lennox Thomson.....	Amherstburg, Ont.	Mar. 14, '77	Feb. 18, '03	O. L. S.
Brenot, Lucien.....	Ottawa, Ont.	Aug. 31, '87	Mar. 18, '10	
Brigdland, Morrison Parsons..	Calgary, Alta.	Dec. 20, '78	" 10, '05	
Broughton, George Henry.....	Penticton, B.C.	Aug. 12, '86	June 3, '09	B. C. L. S.
Brown, Charles Dudley.....	Winnipeg, Man.	Feb. 25, '83	April 4, '10	
Brown, Thomas Wood.....	Edmonton, Alta.		June 21, '09	
Brownlee, James Harrison.....	Vancouver, B.C.	Mar. 22, '56	April 15, '87	M. L. S., B. C. L. S.
Bucknill, Walter Burch.....	"	May 8, '73	Mar. 19, '08	B. C. L. S.
Burgess, Edward Le Roy.....	Ottawa, Ont.	May 5, '78	Feb. 23, '05	T. S. Branch Dept. of Interior.
Burnet, Hugh.....	Victoria, B.C.		June 22, '85	O. L. S., B. C. L. S.
Burwash, Nathaniel Alfred....	Whitehorse, Y.T.	Sept. 28, '79	Mar. 6, '07	O. L. S.
Burwell, Herbert Mahlon.....	Vancouver, B.C.	Oct. 23, '63	Feb. 17, '87	B. C. L. S.
Campbell, Allan John.....	Sidney, B.C.	Oct. 1, '82	April 13, '09	
Campbell, Alexander Stewart..	Kingston, Ont.	Mar. 7, '80	Mar. 6, '09	
Carbert, Joseph Alfred.....	Medicine Hat, Alta.	Feb. 4, '56	May 12, '80	O. L. S., District Engineer and Surveyor, Dept. of Public Works, Alberta.
Carpenter, Henry Stanley.....	Regina, Sask.	Feb. 8, '74	Feb. 20, '01	Dept. of Public Works, O. L. S.
Carroll, Cyrus.....	Prince Albert, Sask.	Dec. 6, '34	April 14, '72	O. L. S.
Carson, Percy Alexander.....	Ottawa, Ont.	Dec. 25, '77	Feb. 22, '06	
Cartheu, William Morden.....	Edmonton, Alta.	Oct. 19, '86	Mar. 25, '10	
Cautley, Reginald Hutton.....	Edmonton, Alta.	Dec. 6, '79	May 1, '05	
Cautley, Richard Wm.....	"	Aug. 3, '73	Sept. 2, '96	
Cavana, Allan George.....	Orillia, Ont.	Jan. 23, '58	Nov. 16, '76	O. L. S.

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APPENDIX No. 10.

LIST of Dominion Land Surveyors who have been supplied with Standard Measures.—Continued.

Name.	Address.	Date of Birth.	Date of Appointment or of Commission.	Remarks.
Charlesworth, Lionel Clare....	Edmonton, Alta....	Nov. 17, '73	Mar. 24, '03	O. L. S., Dept. of Public Works for Alberta.
Chilver, Charles Alonzo.....	Walkerville, Ont....	Feb. 8, '83	Feb. 22, '07	
Christie, William.....	Prince Albert, Sask.	Feb. 13, '76	Mar. 22, '06	
Clarke, Charles Wentworth....	Regina, Sask.....	Nov. 19, '75	" 24, '10	
Cleveland, Ernest Albert.....	Vancouver, B.C....	May 12, '74	June 27, '89	B. C. L. S.
Coates, Preston Charles.....	Golden, B.C.....	" 16, '81	April 19, '07	"
Cokely, Leroy S.....	Merritt, B.C.....	Nov. 23, '84	Mar. 22, '10	"
Côté, Joseph Adelard.....	Prince Albert, Sask.	June 5, '64	May 14, '84	
Côté, Jean Léon.....	Edmonton, Alta....	May 6, '67	Mar. 21, '90	
Cotton, Arthur Frederick.....	New Westminster, B.C.....	Aug. 8, '52	May 11, '80	O. L. S., B. C. L. S.
Craig, John Davidson.....	Ottawa, Ont.....	Jan. 30, '76	Feb. 24, '02	Boundary Surveys, Dept. of the Interior.
Cumming, Austin Lewis.....	Cornwall, Ont.....	Aug. 25, '82	Feb. 3, '10	
Cummings, Alfred.....	Fernie, B. C.....	July 3, '80	Mar. 3, '09	B. C. L. S.
Cummings, John George.....	Cranbrook, B.C.....	Nov. 19, '73	Feb. 17, '04	"
Dalton, John Jos.....	Weston, Ont.....	June 12, '54	April 17, '79	O. L. S., D. T. S.
Davies, Thomas Attwood.....	Edmonton, Alta....	" " " "	Feb. 22, '06	
Dawson, Frederick James.....	Ashcroft, B.C.....	Sept. 22, '86	Sept. 12, '10	
Day, Harry Samuel.....	St. John, N.B.....	Nov. 14, '85	Mar. 9, '11	
Deans, William James.....	Brandon, Man.....	May 4, '60	May 13, '86	O. L. S.
de la Condamine C.....	High River, Alta....	Feb. 13, '75	May 4, '10	
Dennis, John Stoughton.....	Calgary, Alta.....	Oct. 22, '56	Nov. 19, '77	D. T. S.
Denny, Herbert C.....	Not known.....	" " " "	April 1, '82	
Dickson, Henry Godkin.....	Whitehorse, Y.T.....	Mar. 29, '64	Mar. 19, '89	M. L. S.
Dickson, James.....	Feuclou Falls, Ont....	Oct. 30, '34	April 14, '72	O. L. S.
Dobie, James Samuel.....	Thessalon, Ont.....	Oct. 15, '73	Mar. 22, '06	O. L. S.
Doupe, Jacob Lonsdale.....	Winnipeg, Man.....	Sept. 14, '67	Oct. 6, '88	M. L. S., Asst. Land Commissioner for C.P.R.
Drewry, William Stewart.....	Nelson, B.C.....	Jan. 20, '59	Nov. 14, '83	O. L. S., B. C. L. S.
Driscoll, Alfred.....	Edmonton, Alta....	July 2, '65	Feb. 23, '87	B. C. L. S.
Drummond, Thomas.....	Montreal, P.Q.....	1856	June 24, '78	D. T. S.
Ducker, William A.....	Winnipeg, Man.....	April 4, '32	Mar. 30, '83	O. L. S., M. L. S.
Dumais, Paul Thomas Coucorde	Hull, P.Q.....	Jan. 2, '47	" 29, '82	Q. L. S.
Edwards, George.....	Ponoka, Alta.....	June 13, '42	April 14, '72	O. L. S.
Edwards, William Milton.....	Lethbridge, Alta....	" 21, '79	" 5, '10	
Ellacott, Charles Herbert.....	Victoria, B.C.....	Dec. 24, '66	Feb. 22, '89	B. C. L. S.
Empey, John Morgau.....	Calgary, Alta.....	April 16, '74	" 23, '05	O. L. S.
Engler, Carl.....	Ottawa, Ont.....	Sept. 30, '72	" 23, '05	T. S. Branch, Dept. of Interior.
Fairchild, Charles Courtland..	Brantford, Ont.....	Feb. 21, '67	" 20, '01	O. L. S.
Farncomb, Alfred Ernest.....	Lacombe, Alta.....	May 22, '73	Mar. 12, '02	O. L. S.
Fawcett, Thomas.....	Toronto, Ont.....	Oct. 28, '48	Nov. 18, '76	O. L. S., D. T. S.
Fawcett, Adam.....	Gravenhurst, Ont....	" " " "	Feb. 22, '83	
Ferguson, George Hendry.....	Toronto, Ont.....	Jan. 20, '83	June 2, '09	
Findlay, Allan.....	Winnipeg, Man.....	Oct. 15, '80	Mar. 21, '98	
Fontaine, Louis Elie.....	Levis, P.Q.....	Oct. 3, '68	Nov. 30, '92	
Francis, John.....	Portage la Prairie, M.	Dec. 22, '32	June 17, '75	M. L. S.
Garden, James Ford.....	Vancouver, B.C.....	Feb. 19, '47	May 13, '80	B. C. L. S.
Garden, George H.....	Lethbridge, Alta....	" " " "	April 14, '72	Deputy Surveyor for N.B.
Garden, Charles.....	Not known.....	" " " "	" 14, '72	"
Garner, Albert Coleman.....	S. Qu'Appelle, Sask.	Sept. 6, '78	May 27, '07	"
Gauvreau, Louis Pierre.....	Not known.....	" " " "	April 14, '72	"
Gibbon, James.....	Dawson, Y.T.....	June 25, '60	Feb. 12, '91	O. L. S.
Gordon, Maitland Lockhart.....	Vancouver, B.C.....	" " " "	" 18, '04	B. C. L. S.
Gordon, Robert John.....	Lethbridge, Alta....	June 18, '69	Mar. 12, '02	
Gore, Thomas Sinclair.....	Victoria, B.C.....	1852	April 19, '79	B. C. L. S.
Graham, John Robertson.....	Ottawa, Ont.....	" " " "	May 26, '10	
Green, Alfred Harold.....	Nelson, B.C.....	Jan. 20, '79	Feb. 23, '05	B. C. L. S.
Green, Thomas Daniel.....	Prescott, Ont.....	Dec. 21, '57	May 19, '84	O. L. S.
Green, Frank Compton.....	Nelson, B.C.....	" " " "	" 8, '03	B. C. L. S.
Grover, George Alexander.....	Norwood, Ont.....	" " " "	Feb. '18, '04	

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APPENDIX No. 10.

LIST of Dominion Land Surveyors who have been supplied with Standard Measures.—*Continued.*

Name.	Address.	Date of Birth.	Date of Appointment or of Commission.	Remarks.
Hamilton, James Frederick . . .	Lethbridge, Alta. . .	April 4, '69	June 2, '09	
Harris, John Walter	Winnipeg, Man.	Feb. 26, '45	April 14, '72	O.L.S., M.L.S., City Smr.
Harrison, Edward.	Belleville, Ont.		May 14, '10	
Harvey, Charles	Kelowna, B.C.	May 5, '76	Feb. 17, '04	B. C. L. S.
Hawkins, Albert Howard. . . .	Listowel, Ont.	July 27, '62	Mar. 6, '06	
Heaman, John Andrew.	Winnipeg, Man.	June 3, '75	July 15, '09	O. L. S.
Heatheott, Robert Vernon. . . .	Edmonton, Alta.	July 7, '81	May 13, '07	
Henderson, Walter.	Not known.		Nov. 17, '83	
Heuperman, Lambertus Fred. . .	Calgary, Alta.	Sept. 20, '81	Mar. 20, '10	
Holcroft, Herbert Spencer. . . .	Toronto, Ont.	" 4, '77	Feb. 18, '03	O. L. S.
Hopkins, Marshall Willard. . . .	Edmonton, Alta.	May 24, '61	" 20, '01	O. L. S.
Hubbell, Ernest Wilson.	Ottawa, Ont.	Nov. 5, '62	May 19, '84	Inspector of Surveys, Topographical Surveys Branch, Dept. of Interior.
James, Silas	Toronto, Ont.	June 19, '34	April 14, '72	O. L. S.
Johnson, Richard Jermy	Brandon, Man.	Feb. 5, '54	May 12, '80	O. L. S., B. C. L. S.
Johnson, Alfred William. . . .	Kamloops, B.C.	" 23, '74	Mar. 12, '02	B. C. L. S.
Keith, Homer Pasha.	Edmonton, Alta.	Aug. 30, '85	Feb. 1, '11	
Kimpe, Maurice	Edmonton, Alta.	Jan. 17, '76	May 13, '07	
King, William Frederick	Dominion Observatory, Ottawa, Ont.	Feb. 19, '54	Nov. 21, '76	D.T.S., Chief Astronomer Dept. of Interior.
Kirk, John Albert.	Summerland, B.C.	Jan. 9, '54	May 11, '80	O.L.S., B.C.L.S.
Kitto, Franklin Hugo.	Ottawa, Ont.	Mar. 28, '80	Mar. 6, '08	Topographical Surveys Br. Dept. of Interior.
Klotz, Otto Julius.	Dominion Observatory, Ottawa, Ont.	Mar. 31, '32	Nov. 19, '77	O.L.S., D.T.S., Astronom- er, Dept. of Interior.
Knight, Richard H.	Edmonton, Alta.	June 7, '77	Feb. 18, '04	
Lang, John Leiper	Toronto, Ont.		Oct. 14, '08	
Latimer, Frank Herbert.	Penticton, B.C.	May 23, '60	Nov. 13, '85	
Laurie, Richard C.	Battleford, Sask.	Jan. 31, '58	April 27, '83	
Lawe, Henry.	Ottawa, Ont.	Feb. 28, '38	April 14, '72	O.L.S., M.L.S. Topogra- phical Surveys Branch, Dept. of Interior.
Lemoine, Charles Errol.	Ville Montcalme, P.Q.		Mar. 31, '82	Q.L.S.
Lendrum, Robert Watt.	Strathcona, Alta.	July 24, '34	May 15, '80	O.L.S.
Lighthall, Abram	Vankleek Hill, Ont.	Mar. 30, '78	Dec. 25, '09	
Loneragan, Gerald Joseph. . . .	Buckingham, P.Q.	Oct. 8, '71	Feb. 28, '01	Q.L.S. Inspector of Sur- veys, Dept. of Interior.
Lumsden, Hugh David.	Ottawa, Ont.	Sept. 7, '44	Apr. 14, '72	O.L.S.
MacLennan, Alexander L.	Toronto, Ont.	May, 10, '78	Feb. 23, '05	
MacPherson, Charles Wilfrid. . .	Dawson, Y. T.	Sept. 6, '71	Mar. 7, '00	O.L.S. Director of Sur- veys, Y.T.
Magrath, Charles Alexander . . .	Lethbridge, Alta.	April 22, '60	Nov. 16, '81	B.A. Sc., O.L.S., B.C.L. S., D.T.S.
Martyn, Oscar William	Mitchell, Ont.	Dec. 2, '88	Mar. 11, '11	
Meadows, William Walter. . . .	Maple Creek, Sask.	May 27, '73	Feb. 23, '05	O.L.S.
Miles, Charles Falconer.	Toronto, Ont.	Jan. 30, '38	Apr. 14, '72	O.L.S. Inspector of Sur- veys, Dept. of Interior.
Mitchell, Benjamin Foster. . . .	Calgary, Alta.	June 16, '80	April 16, '08	
Moberly, Harford Kenneth. . . .	Moosomin, Sask.	—	'69 April 21, '03	
Molloy, John.	Winnipeg, Man.	Jan. 13, '40	April 14, '72	M.L.S.
Montgomery, Royal Harp.	Prince Albert, Sask.	May 20, '82	Feb. 23, '05	O.L.S.
Moore, Herbert Harrison.	Calgary, Alta.	Dec. 1, '69	Feb. 17, '04	
Morrier, Joseph Eldedge.	Ottawa, Ont.	Aug. 29, '74	May 16, '07	
McArthur, James Joseph.	Ottawa, Ont.	May 9, '56	Apr. 17, '79	Boundary Survey, Dept. of Interior.
McCaw, Robert Daniel	Sidney, B.C.	May 24, '83	Mar. 23, '09	
McColl, Gilbert Beebe.	Winnipeg, Man.	Oct. 8, '82	Mar. 20, '07	M.L.S., D.T.S.
McDiarmid, Stuart Stanley	Vancouver, B.C.	Aug. 4, '81	Feb. 23, '05	B.C.L.S.
McFadden, Moses.	Vancouver, B.C.	Aug. 26, '26	Apr. 14, '72	O.L.S., M.L.S.
McFarlane, Walter Graham. . . .	Toronto, Ont.	Sept. 28, '75	May 19, '03	

SESSIONAL PAPER No. 25

APPENDIX No. 10.

LIST of Dominion Land Surveyors who have been supplied with Standard Measures.—*Continued.*

Name.	Address.	Date of Birth.	Date of Appointment or of Commission.	Remarks.
McFarlane, John Baird.	Claremont, Ont.	Feb. 25, '79	June 3, '88	
McFee, Angus	Red Deer, Alta.	July 14, '46	Apr. 19, '79	
McGeorge, William Graham	Chatham, Ont.	Mar. 22, '87	Mar. 21, '10	
McGrandle, Hugh	Wetaskiwin, Alta.	Mar. 12, '57	Mar. 30, '83	O.L.S.
McKenna, John Joseph	Dublin, Ont.		Apr. 14, '72	O.L.S.
McKenzie, John	New Westminster, B.C.	Oct. 31, '47	Nov. 18, '87	
McLean, James Keachie	Ottawa, Ont.	Dec. 19, '51	Apr. 1, '82	O.L.S. Dept. of Indian Affairs.
McMillan, George	Finch, Ont.	Dec. 9, '69	Feb. 22, '96	
McNaughton, Alexander L.	Cornwall, Ont.	Sept. 30, '81	Feb. 23, '05	O.L.S., B.C.L.S.
McPherson, Archibald John	Regina, Sask.		70 Feb. 21, '01	
McPhillips, George	Winnipeg, Man.	April 26, '48	June 17, '75	O.L.S., M.L.S.
McPhillips, Robert Charles	Winnipeg, Man.	Apr. 24, '56	May 17, '80	
McVittie, Archibald W.	Victoria, B.C.	May 5, '58	Mar. 30, '82	B.C.L.S.
Nash, Thomas Sanford	Ottawa, Ont.	July 2, '75	Feb. 18, '04	Topographical Surveys Branch, Dept. of Interior.
Ogilvie, William	Ottawa, Ont.	April 7, '46	Apr. 14, '72	O.L.S.
O'Hara, Walter Francis	Ottawa, Ont.		Feb. 19, '95	O.L.S.
Ord, Lewis Redman	Hamilton, Ont.	Oct. 17, '56	Apr. 1, '82	O.L.S.
Parsons, Johnstone Lindsay R.	Regina, Sask.	Jan. 18, '76	Feb. 23, '05	O.L.S.
Patrick, Allan Poyntz	Calgary, Alta.	July 18, '49	Nov. 19, '77	B.C.L.S., D.T.S.
Patten, Thaddeus James	Little Current, Ont.	Feb. 4, '59	Mar. 29, '83	O.L.S.
Pearce, William	Calgary, Alta.	Feb. 1, '48	May 10, '80	O.L.S., B.C.L.S.
Pequegnat, Marcel	Berlin, Ont.	Apr. 27, '86	June 6, '10	
Peters, Frederick Hatheway	Calgary, Alta.	Nov. 4, '83	Mar. 4, '10	Commissioner of Irrigation
Phillips, Edward Horace	Saskatoon, Sask.	Dec. 19, '78	Feb. 24, '02	
Phillips, Harold Geoffrey	Saskatoon, Sask.	Sept. 3, '87	Apr. 23, '10	
Pierce, John Wesley	Haileybury, Ont.		Dec. 24, '09	
Punkett, Thomas Hartley	Meaford, Ont.	June 1, '78	Mar. 12, '05	
Ponton, Archibald William	Edmonton, Alta.	Jan. 25, '59	Mar. 18, '81	O.L.S.
Proudfoot, Hume Blake	Saskatoon, Sask.	June 23, '58	Mar. 28, '82	O.L.S.
Rainboth, Edward Joseph	Ottawa, Ont.		May 19, '81	Q.L.S., O.L.S.
Ransom, John Thomas	Toronto, Ont.	Aug. 24, '88	Jan. 14, '11	
Reid, John Lestock	Prince Albert, Sask.	Sept. 12, '41	Apr. 14, '72	Dept. of Indian Affairs.
Reilly, William Robinson	Regina, Sask.	Aug. 10, '57	Nov. 17, '81	O.L.S., M.L.S.
Richard, Joseph François	Ste. Anne de la Pocatière, P. Q.		May 13, '82	
Rinfret, Raoul	Montreal, P. Q.	July 16, '56	Feb. 20, '00	Q.L.S.
Ritchie, Joseph Frederick	Prince Rupert, B.C.	May 23, '63	Jan. 7, '89	B.C.L.S.
Roberston, Henry H.	N. Temiskaming, P. Q.	Sept. 13, '47	April 14, '72	Q.L.S.
Roberts, Sydney Archibald	Victoria, B.C.	April 10, '48	May 16, '85	B.C.L.S.
Roberts, Vaughan Maurice	Goderich, Ont.	Mar. 22, '64	" 17, '86	
Robinson, Ernest Walter P.	Ottawa, Ont.	May 8, '80	" 1, '98	
Robinson, Franklin Joseph	Regina, Sask.	Oct. 20, '70	Feb. 20, '00	Deputy Minister of Public Works.
Rolfson, Orville	Walkerville, Ont.	Feb. 26, '85	July 11, '08	
Rombough, Marshall Bedwell	Morden, Man.	Oct. 14, '35	April 14, '72	M.L.S.
Rorke, Louis Valentine	Toronto, Ont.	Feb. — '65	Aug. 13, '91	O.L.S. Inspector of Surveys for Ontario.
Ross, George	Welland, Ont.	June 12, '53	Nov. 21, '82	O.L.S.
Ross, Joseph Edmund	Kanloops, B.C.	Jan. 9, '61	Feb. 12, '91	O.L.S., B.C.L.S.
Routly, Herbert Thomas	Haileybury, Ont.	June 20, '78	" 15, '11	
Roy, George Peter	Quebec, P.Q.	Oct. 1, '52	Nov. 17, '81	Q.L.S.
Roy, Joseph George Emile	Quebec, P.Q.	Mar. 14, '86	May 25, '10	
Saint Cyr, Jean Baptiste	Montreal, P.Q.	Dec. 17, '66	Feb. 17, '87	Q.L.S.
Saint Cyr, Arthur	Ottawa, Ont.	Nov. — '60	" 17, '87	
Saunders, Bryce Johnston	Edmonton, Alta.	Oct. 17, '60	Nov. 16, '84	O.L.S.
Scott, Walter Alexander	Galt, Ont.	Aug. 8, '85	Mar. 9, '09	
Senger, Edmund	Kenora, Ont.	Nov. 22, '38	April 14, '72	O.L.S.
Sewell, Henry DeQuincy	Toronto, Ont.	April 18, '48	May 16, '85	O.L.S.
Seymour, Horace Llewellyn	Edmonton, Alta.	June 11, '82	Feb. 22, '06	O.L.S.

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APPENDIX No. 10.

LIST of Dominion Land Surveyors who have been supplied with Standard Measures.—*Continued.*

Name.	Address.	Date of Birth.	Date of Appointment or of Commission.	Remarks.
Shaw, Charles Aeneas.....	Greenwood, B.C.....	Nov. 16, '53	May 10, '80	O.L.S., B.C.L.S.
Shepley, Joseph Drummond.....	N. Battleford, Sask.....	Sept. 13, '79	Mar. 13, '06	
Smith, Charles Campbell.....	Ottawa, Ont.....	Jan. 1, '73	Feb. 22, '06	O.L.S.
Smith, Donald Alpine.....	Claude, Ont.....	Sept. 22, '80	April 21, '10	
Smith, James Herbert.....	Edmonton, Alta.....	Nov. 8, '76	Feb. 23, '05	
Speight, Thomas Bailey.....	Toronto, Ont.....	Feb. 8, '59	Nov. 16, '82	O.L.S.
Starkey, Samuel M.....	Cody's, Queen's Co., N.B.	Sept. 4, '37	April 14, '72	
Steele, Ira John.....	Ottawa, Ont.....	April 6, '81	" 16, '08	
Stewart, Elihu.....	Collingwood, Ont.....	Nov. 17, '44	" 14, '72	O.L.S.
Stewart, Lionel Douglas.....	Collingwood, Ont.....		Jan. 27, '10	
Stewart, Will Malcolm.....	Saskatoon, Sask.....	Nov. 26, '84	June 6, '07	
Stewart, Louis Beaufort.....	Toronto, Ont.....	Jan. 27, '61	Nov. 22, '82	O.L.S., D.T.S.
Stewart, George Alexander.....			April 14, '72	O.L.S.
Stock, James Joseph.....	Ottawa, Ont.....	Aug. 16, '87	Mar. 2, '10	
Street, Paul Bishop.....	Toronto, Ont.....	Dec. 3, '81	" 20, '10	
Summers, Gordon Foster.....	Haileybury, Ont.....		Oct. 20, '10	
Talbot, Albert Charles.....	Calgary, Alta.....	April 5, '56	May 13, '80	
Taylor, Alexander.....	Portage la Prairie, Man.	Aug. 6, '75	June 9, '04	M.L.S.
Taylor, William Emerson.....	Owen Sound, Ont.....	Aug. 3, '81	Dec. 16, '10	
Teasdale, Charles Montgomery.....	Concord, Ont.....	Oct. 18, '79	Mar. 9, '06	
Thompson, William Thomas.....	Grenfell, Sask.....	Nov. 1, '53	Nov. 19, '77	D.T.S.
Tracy, Thomas Henry.....	Vancouver, B.C.....	June 25, '48	April 14, '72	O.L.S., B.C.L.S.
Tremblay, Alfred Joseph.....	Les Eboulements, P.Q.		Feb. 18, '90	
Turnbull, Thomas.....	Winnipeg, Man.....	May 26, '37	Mar. 29, '82	O.L.S.
Tyrrell, James William.....	Hamilton, Ont.....	May 10, '63	Feb. 16, '87	O.L.S.
Vaughan, Josephus Wyatt.....	Vancouver, B.C.....	Oct. 17, '45	June 11, '78	B.C.L.S.
Vicars, John Richard Odium.....	Kamloops, B.C.....	April 16, '55	May 17, '86	O.L.S., B.C.L.S.
Waddell, William Henry.....	Edmonton, Alta.....	Mar. 23, '83	Mar. 25, '07	O.L.S.
Waldron, John.....	Pine Grove, Ont.....	Aug. 1, '72	April 2, '07	
Walker, Claude Melville.....	Guelph, Ont.....	Oct. 16, '84	Mar. 11, '11	
Walker, Ernest Ward.....	Regina, Sask.....	Dec. 26, '75	" 27, '07	
Wallace, James Nevin.....	Calgary, Alta.....	Aug. 21, '70	Feb. 20, '00	O.L.S.
Warren, James.....	Walkerton, Ont.....	Nov. 7, '37	April 14, '72	
Watt, George Herbert.....	Ottawa, Ont.....	Feb. 5, '76	Feb. 24, '02	
Weekes, Abel Seneca.....	Edmonton, Alta.....	Feb. 17, '66	" 11, '92	
Weekes, Melville Bell.....	Regina, Sask.....	Nov. 28, '74	" 18, '03	O.L.S.
Wheeler, Arthur Oliver.....	Calgary, Alta.....	May 1, '60	Nov. 21, '82	O.L.S., B.C.L.S.
White-Fraser, George W. R. M.....	Ottawa, Ont.....		'61 Feb. 21, '88	D.T.S.
Wiggins, Thomas Henry.....	Saskatoon, Sask.....	Aug. 24, '63	" 18, '96	O.L.S.
Wilkins, Frederick W. B.....	Norwood, Ont.....	June 27, '54	May 18, '81	O.L.S., D.T.S.
Wilkinson, William Downing.....	Not known.....		Feb. 22, '93	
Williams, Guy Lorne.....	Enderby, B.C.....	Mar. 3, '79	June 24, '08	B.C.L.S.
Woods, Joseph Edward.....	Pincher Creek, Alta.....	Oct. 13, '61	Nov. 14, '85	
Young, Walter Beatty.....	Winnipeg, Man.....	July 6, '80	Mar. 25, '05	M.L.S.
Young, William Howard.....	Lethbridge, Alta.....	June 8, '78	May 17, '07	

PART V
DOMINION PARKS

DOMINION PARKS

No. 1.

REPORT OF THE COMMISSIONER OF DOMINION PARKS.

OFFICE OF THE COMMISSIONER OF DOMINION PARKS,

EDMONTON, ALBERTA, April 1, 1911.

The Honourable FRANK OLIVER,
Minister of the Interior,
Ottawa, Ont.

SIR,—I have the honour to submit herewith my third annual report as Commissioner of Dominion Parks for the year ending March 31, 1911.

For convenience I have arranged the report under the following heads:—

1. Report of the Commissioner of Dominion Parks.
2. Report of the Superintendent of the Rocky Mountains Park.
- 2A. Report of the Curator of the Banff Museum.
- 2B. Analysis of Nationalities of visitors to Banff Springs and Hotels.
3. Report of the Superintendent of Yoho and Glacier Parks.
4. Report of the Superintendent of Jasper Park.
5. Report of the Superintendent of Buffalo Park.
6. Report of the Superintendent of Elk Island Park.
7. Report of the Superintendent of Waterton Lakes Park.

In presenting my report for the year ending March 31, 1911, I have attached reports from the superintendents of the different parks in control of this branch of the Department of the Interior. These reports give in detail an account of the work carried on in, and the operation of the parks under their charge.

In the month of June, 1910, the office of the Commissioner of Dominion Parks was moved from Banff to Edmonton in order that the commissioner might be in closer touch with the organization of the new park in the Jasper Pass, and the Buffalo and Elk Island parks. I had, up to that time, been acting as superintendent of the Rocky mountains park at Banff, and my removal to Edmonton necessitated the appointment of a new superintendent for the Rocky Mountains Park. Accordingly, Mr. A. B. Macdonald was appointed to the position, and took charge in June, 1910.

I had previously arranged an outline of the work to be done in the Rocky mountains park during the year, so, as will be seen by his report, a large part of his duties outside of the routine work of the superintendent's office, was the completion of the work already arranged for.

REVENUE OF PARK.

It will be noticed that the revenue of the Rocky Mountains Park continues to show a steady and satisfactory increase over that of former years. For the year just ended the revenue of the park from all sources was fully 35 per cent over that of the previous year, and almost equalled the amount voted by parliament for the

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maintenance of that park. The revenue is derived from baths, sulphur water rates, ground rents, coal royalties, timber dues, livery and other licenses and permits; also a few other minor sources, and it is pleasing to note that every department shows an increase.

GAME AND FIRE PROTECTION.

Since the inauguration, in 1909, of a system of game and fire protection, by the appointment of permanent game and fire wardens, whose duty it is to patrol the park, the game in the park has greatly increased and the animals are coming closer to the village of Banff and the paths of the tourists, and are less timid. As a matter of fact it is no uncommon occurrence to see deer on the lawns of the residences of Banff. A band of eighteen mountain sheep wintered last year within one half mile of the Canadian Pacific railway station at Banff. This has been largely due to the exclusion of dogs from the park and the enforcement of the regulation prohibiting the carrying of any, but sealed, fire-arms within the confines of the park. The fact that these game wardens are constantly patrolling the park has resulted in the almost total abolition of the poaching, and only one or two instances of this were brought to the attention of the park superintendent during the year. A conviction was secured in one case, and a heavy penalty imposed, which will have the effect of preventing a recurrence of the offence.

In my opinion a strict enforcement of the regulations will result in a very rapid increase in the numbers of game, and thus an additional attraction will be furnished for tourists visiting this favourite resort.

There is no doubt that the patrolling daily of the park by the fire guardians, and the enforcement of the regulations regarding camping parties, has been largely responsible for the small amount of damage by fire reported, and is sufficient proof of the wisdom of having permanent men on the ground. In many cases, when out on patrol, they have been able to discover and extinguish small fires before they had made much headway, and have thus been enabled to preserve much of the natural beauty of the park. These small fires were, in most cases, caused by the thoughtlessness of smokers, but in such an extended area, where there are so many such persons, it is almost impossible to fix the responsibility in every case.

The above remarks will also apply to the Yoho and Glacier parks, where the conditions are almost similar. These parks are, year by year, becoming more favourite resorts for tourists as their natural beauty and charm become better known. The revenue from these parks also shows a very satisfactory increase.

PERMANENT IMPROVEMENTS.

As will be seen by the reports of the superintendents of these parks, a more than usual amount of work was done during the year in the parks along the main line of the Canadian Pacific railway. Perhaps the most important work was the completion of that part of the coach road within the Rocky Mountains Park connecting Banff with the city of Calgary. Three new bridges were built on this road, which is now in a passable condition. It is understood that the Alberta government intends, during the summer, to expend a considerable amount of money on the road east of the park, so as to make it possible to travel by automobile from Calgary to Banff. This should attract a greatly increased number of visitors from that city.

It is also intended to extend this year the coach road to Castle mountain and Laggan, an appropriation for which has been made by parliament. This road will greatly increase the efficiency of the fire patrol system. Running as it does along the north of and parallel to the main line of the Canadian Pacific railway, it furnishes a fire-break on that side of the railway; and with the Bow river on the

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south side, the railway will be practically fire-guarded on both sides through the park. From Castle mountain the road can be extended some eight or nine miles to the limits of the park at Vermilion Pass, to connect with the road now under construction by the British Columbia government, from that pass, through the Windermere valley, to Fort Steele and Cranbrook. Tourists to the Rocky Mountains Park would thus have easy access to the beautiful Columbia valley, which would provide an additional attraction for them.

In the Yoho Park, as will be seen by the report of Mr. Hunter, a considerable amount of work was done in the townsite of Field in opening up and grading new streets and in moving a number of buildings erected by squatters on the streets before this area was taken into the park limits. The townsite lots were placed on the market during the year, and a considerable number of them have been leased for a term of forty-two years, under the usual parks regulations. In future a considerable revenue will be derived from this park.

In addition to this about four miles of entirely new road was constructed, including the extension of the road up the valley of the Yoho river to the beautiful Takakkaw falls, which excite the wonder of every visitor, and will prove one of the great future attractions of the park. In addition there was built a new road about one mile in length from the Emerald lake road to the natural bridge over the Kicking Horse, giving access to a very beautiful piece of scenery.

A considerable amount of work on the trails in Glacier Park was done during the year, as shown by the report of the superintendent, and a number of new trails were opened to different beauty spots in the park.

One of the heaviest items of expenditure on work of road building during the coming season will be the construction and extension of the coach road from Banff to Laggan. It is hoped that from fifteen to twenty miles of entirely new road will be completed this year. This will be the chief feature of the work in the Rocky Mountains Park during the year, the other work being merely some small road and trail connections in the vicinity of Banff. We have also called for tenders for the construction of over fifty miles of trail in the vicinity of Banff, which will not only be a great convenience to tourists, but will be of immense value in perfecting the patrol system of the park in permitting the fire and game guardians to reach the outlying portions more quickly and easily.

ANIMALS IN CONFINEMENT.

The report of the superintendent of the Rocky Mountains Park shows that the animals in confinement in the paddocks and at the museum have done unusually well, and the collection has been increased, not only by natural increase, but by the addition of new specimens.

This feature of the attractions at the park is one of the most popular ones. This is evidenced by the large number of people who visit the paddocks and the museum, and spend hours at a time watching and studying the habits and actions of the different animals.

INCREASED NUMBER OF VISITORS.

During the year 63,494 visitors registered at the hotels and summer cottages in Banff, an increase of 7,042 over the previous year, and more than double the number registered in the year 1907. These represented, so far as ascertained, twenty-six different nationalities.

I have before me the annual report of the superintendent of the Yellowstone Park in the United States for 1910, which gives the total number of visitors to that

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resort as 19,575 for the year. From this it will be seen that more than three times as many people visit Canada's national park as visit the favourite tourist resort of the United States.

Judging from the increasing number of visitors year by year, it is reasonable to expect that there will be a still further increase in future years, and that additional accommodation, in the way of baths, &c., is an absolute necessity if the park is to retain its present popularity as the favourite resort of the continent.

The value of this large tourist traffic, as an asset of the Dominion of Canada, in direct revenue, may be judged from the following extract from the report of Commissioner Whipple of the Adirondack parks in New York state:—

'The Commission's report shows that Adirondack hotels in Clinton county accommodate 3,153 persons; Essex, 7,719; Franklin, 4,626; Fulton, 410; Hamilton, 2,395; Harkimer, 2,415; Lewis, 510; Oneida, 150; St. Lawrence, 1,223; Warren, 3,060; or a total of 28,502 persons. The above figures do not include the private camps and sanitariums. The average length of time spent in the Adirondacks by each visitor is about two weeks; hence it is figured that in those days about 200,000 people sought recreation and health in that region. This estimate was proved to be about right by the reports of the railroads—the Central and the Delaware & Hudson—which showed that 225,000 passengers were carried during the summer season.

'It was estimated that more than \$7,000,000 were invested in hotels and boarding houses, and about \$4,000,000 in private camps and cottages. The total wages paid to 18,307 guides, clerks, servants, cooks, &c., were \$991,550; cash paid for board, carriages, boats, &c., amounted to \$5,213,210; for railroad fares, \$875,000. Thus more than seven millions were spent by summer resorters. This business is largely dependent upon standing forests. The water-power, developed and undeveloped, of much greater value, also depends upon the forest. Present lumbering methods are the great power which works toward the ruin of these two great industries.'

It is a well known fact that the natural attractions of the Adirondack Parks do not compare with those of Canada's National Parks, and there is no doubt that in a very few years the number of tourists to these parks will be greater than that to the Adirondacks, and that their stay will be of longer duration.

ALPINE CLUB OF CANADA.

The Alpine Club of Canada continues to attract widespread attention to the Canadian mountain ranges. The Club House at Banff was open, as usual, all the season and an appreciable part of the secretary's time was daily taken up in giving information to strangers from all parts of the world.

The annual camp was held this year in Consolation Valley, near the lower lake. In spite of the long distance from the railway a large attendance was registered. A synopsis by provinces, states, and countries is here given.

FROM CANADA.

British Columbia—Chilliwack, Cranbrook, Field, Golden, Keremeos, Vancouver, Victoria.

Alberta—Banff, Brant, Calgary, Carbon, Cowley, Coleman, Crossfield, Leduc, Lethbridge, Okotoks, Pincher Creek, Red Deer.

Saskatchewan—Moosejaw, Regina, Saskatoon.

Manitoba—Lillyfield, Winnipeg.

Ontario—Peterborough, Pinkerton, Port Hope, Toronto, Walkerton, Woodstock.

Quebec—Montreal, South Durham.

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FROM THE UNITED STATES OF AMERICA.

Illinois—Chicago, Galesburg.
Massachusetts—Boston, West Newton.
Michigan—Saginaw.
Minnesota—Minneapolis, St. Paul.
Missouri—St. Louis.
New Hampshire—Antrim.
New York—Brooklyn, New York.
Oregon—Portland.
Pennsylvania—Bryn Mawr, Philadelphia.
District of Columbia—Washington.

FROM OVERSEAS.

England—Buckhurst Hill, Croydon, London, Stoke-upon-Trent, Wimbledon.
Austria—Vienna.
Italy—Florence.
Sicily—Rizzola.
Switzerland—Interlaken.

The following mountaineering clubs were represented:—

The Alpine Club (England), The American Alpine Club, The German-Austrian Alpine Club, The Italian Alpine Club, The Swiss Alpine Club, The Appalachian Mountain Club, The Fell and Rock Climbing Club.

Members of the following learned societies were present:—The Royal Society, The Royal Geographical Society, The Royal Meteorological Society, The Royal Society of Medicine, The Zoological Society.

Thirty-three members graduated to full membership upon Mountains Bident, Fay, Temple, Stephen and Eiffel Peak. Among important climbs made were the first ascents of mountains Douglas, Babel, Quadra and Chimney Peak, the last being a hitherto unnamed peak to the south of Mount Fay, on the ridge between Prospectors valley and Boom lake. Assiniboine was ascended by a new route as well as by the usual one. Hungabee was also climbed. The two distinguished English mountaineers, Professor Norman Collie and A. L. Mumm, were again unsuccessful in their attempt upon Mount Robson, perhaps the most ill-conditioned as well as the highest peak of all the Rockies. In the Selkirks further explorations were made, and in recognition of their good work two members, S. H. Baker and Howard Palmer, were admitted to the fellowship of the Royal Geographical Society.

A small camp was also stationed in the upper Yoho Valley from which much good climbing was done.

Immediately after the annual camp the Club organized a small expedition for the purpose of showing some of the less known and greatest beauties of the Canadian Alps to Dr. Longstaff, the Himalayan explorer, and his sister. A week was spent in a journey to the head of the Bow Valley, across the mountains to the Yoho Glacier, returning by the incomparable Yoho Valley. Several mountains were climbed and some idea gained of the vast possibilities of the country from the point of view of an experienced mountaineer.

The club continues to grow and appeals yearly to a wider and more distinguished circle. A few years ago the Canadian Pacific Railway Company had much difficulty in finding work for their Swiss guides. During the past years it was impossible for mountaineers to obtain the services of any of them without long previous arrangements.

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TOWN OF BANFF.

The town of Banff continues to increase in size and in the number of permanent residents. During the year a considerable number of cottages of a much superior class were erected. These are occupied principally by families from the four western provinces during the summer months. During the past couple of years I have noticed a marked increase in the number of people who come to Banff during the winter for their health and to get away from the bleak winds of the prairie, to spend the winter among the pines.

Among the improvements made may be noted the improvements of the Banff Springs Hotel by the Canadian Pacific Railway Company costing \$125,000. These consist of additions and changes to make the hotel more suitable for the accommodation of the large number of guests. It is also understood that improvements will be made to provide for winter as well as summer tourists and that it is the intention of the Company to keep the hotel open the whole year round.

The Canadian Pacific Railway Company has also completed, during the year, a splendid new station 600 ft. in length for the accommodation of the travelling public, also a fine new station at Laggan. The company has also expended, during the year, about \$50,000 in improvements to the Lake Louise Chalet.

NEW BATH HOUSE.

In former reports I drew the attention of the department to the total inadequacy of the accommodation at the baths at the sulphur hot springs. It has given me the greatest amount of pleasure to learn that the suggestions made in my reports have been recognized, and that an appropriation has been made by parliament for the purpose of erecting a modern bath-house. Work will commence early in October after the rush of the season is over, and we hope to have it completed in time for the season of 1912. Plans are now being prepared which provide for one of the most up-to-date bath houses on the continent of America, being principally of marble.

BUFFALO PARK.

As will be seen by the report of Superintendent Ellis of the Buffalo Park at Wainwright, the animals in that park are doing exceptionally well, and a large natural increase may be expected in the future. The Buffalo imported from Montana have taken very kindly to their partial confinement and appear quite contented with the grazing ground provided by the government.

During the year seventy-four head were brought in from the Pablo range in Montana, and in order to introduce new blood into the herd it was considered advisable to purchase thirty head from the Conrad herd in the Kalisper valley. Fifteen of these were brought in in October 1910 and the remaining fifteen in March of this year. There is no doubt that the crossing of these with those of the Pablo herd will be of great benefit and counteract the effect of any inbreeding that may have taken place.

It was hoped that Pablo would have completely cleared the range and delivered all the animals contracted for by April 1, but, after repeated efforts, he was forced to abandon it as the animals had become scattered over a wide extent of country and could not be collected. Mr. Pablo is making another heroic effort to round up the balance of the herd and it is his intention, in the event of being unable to collect the whole of the number still at large, to shoot them without reserve. He is doing everything in his power to fulfil his contract to the letter and ship every animal that it is at all possible to secure. During the winter twenty-five old bulls, which had become very fierce, charging the riders and proving themselves a nuisance in the efforts to collect the other animals, were destroyed.

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I cannot speak too highly of the good faith of Mr. Pablo in connection with the delivery of the buffalo contracted for by the Canadian government. He has acted in an upright, honourable manner all through the transaction, and his failure to deliver the last animal in his herd has been through no fault of his.

At the present time there are 809 buffalo in the park, an increase of 110 during the year. The loss during the year was seven head, four of which, however, were injured in shipping, so that the actual loss in the park was only three head. It is the intention to move about fifteen or twenty buffalo to the Moose Mountain Park during the present summer as the nucleus of a herd in that Park, for which an inclosure, about 2,500 acres, will be fenced off. Conditions are favourable for the placing of a number of buffalo in this Saskatchewan park, which was one of their favourite feeding grounds. Hitherto they have all been placed in Alberta. Although the past winter was unusually severe, a comparatively small amount of hay was used to feed the buffalo, which were not fed more than six weeks during the winter. As soon as the mild weather set in the animals left the hay and went back to grazing in the open prairie.

The Buffalo Park has proved a success in every particular, and has shown the wisdom of the selection of the location, not only as a home for the buffalo, but for other animals native to the country.

During the year, 11 moose, 7 elk, and 9 antelope were purchased and placed in the park. All are doing remarkably well with the exception of the antelope, six of which have died, notwithstanding the most careful attention.

I would recommend that a number of old buffalo bulls be disposed of in the month of December, when their coats or fur are at their best, as it would appear that there is no object in keeping this surplus stock after they are ten or fifteen years of age. I have no doubt that better results, in the way of increase, will be achieved with a fewer number of bulls in the herd.

The park as it becomes better known is attracting a large number of visitors and there is no doubt that when the Grand Trunk Pacific railway is completed to the coast, it will be visited by thousands of tourists, as it will contain by far the largest herd of buffalo in the world.

ELK ISLAND PARK.

In Elk Island Park, there are at present a total of 48 head of buffalo, the majority of which are males. The increase during the year was six, with no loss.

Some twelve hundred people visited this park during the summer, it being a favourite resort for campers from Edmonton and Fort Saskatchewan.

We also have a considerable number of moose, elk and deer which are increasing very satisfactorily.

WATERTON LAKES PARK.

This new park in southern Alberta in the Waterton Lake district, situated along the International boundary line adjoining the Glacier Park in the State of Montana, is noted as being a favourite game preserve. This park, which was previously a forest reserve, was only taken over during the year by the department for park purposes, and contains an area of fifty-four square miles, the largest portion of which is mountainous. It has for years been a favourite camping ground for the people of southern Alberta. During the year, over two thousand people camped in the park, some of them remaining for periods of from two to three months. It is also a favourite fishing ground, the numerous small lakes which are fed by mountain streams being literally filled with trout.

The only work done in the Waterton Lakes Park was the cutting of a good horse trail, six feet wide and six miles long, from Cameron Falls in the park to the

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International boundary line. Tourists can now ride through to the road in Glacier Park and the boundary line can be patrolled so as to prevent poaching from the American side.

During the year, 150 villa lots were surveyed along the shores of the lake and already we have applications for a number of them for building purposes.

It is my intention, during the present year, to improve the present roads through the park and to construct several new roads, making it more easy to get to the boundary line on both sides of the lake, also to build trails to other points of interest.

JASPER PARK.

In my last annual report I made slight reference to Jasper Park, an area of over five thousand square miles along the route of the Grand Trunk Pacific railway, set apart a couple of years ago as a national park. At that time very little was known officially of this park, and no work of a permanent nature could be entered upon, owing to the fact that the railway construction had not reached the park. Mr. J. W. McLaggan, chief forest ranger, was appointed acting superintendent, temporarily, with two forest rangers. Mr. McLaggan's duties consisted of fire and game protection, carrying out the park regulations generally in regard to cutting timber, preventing squatters settling in the park and negotiating for the removal of those already there. He also had the oversight of the park generally, and one of the important parts of his work was the regulation of the stopping places and camps established in the park for the convenience of the railway construction work and to see that they were placed in such locations as, while serving the purpose for which they were established, would not destroy any of the natural beauties of the park. He also took care that no undesirable class should be allowed to enter the park and establish places of resort which might not be to the welfare of the men engaged in railway construction.

At the time that the park was reserved by the government there were a number of squatters settled in it, some of whom had been there for a great many years, in fact some of them had been born there and had grown up in the Jasper Pass. As it was not desirable that they should remain in the park, and as they had certain rights, negotiations were entered into for their peaceful removal. These negotiations, I am pleased to state, were, with one exception, successful; and at the present time only one man has refused the terms offered by the government and persists in retaining the lands on which he settled as a squatter.

As will be seen by the report of Mr. McLaggan, in spite of the fact that railway construction is being carried on through the entire length of Jasper Park and that a large number of men are employed, the park regulations are being well enforced. There has been very little destruction from forest fires, or killing of game or lawlessness. Mr. McLaggan reports having had the hearty support of the railway company and contractors in carrying out his duties. Without this co-operation it would have been impossible to have prevented destructive fires where such a long stretch of right-of-way is being cleared and where there are so many freighters camping along to tote road. The railway grading work extends for sixty miles within the park limits and thousands of men and hundreds of teams were employed. These freighters often camp at noon and some of them at night in the open and build camp fires. This required constant supervision and patrolling and there is no doubt that had this not been done, serious fires would have resulted.

In March of this year, I made a trip of personal inspection to Jasper Park, for the purpose of investigating as to whether it would be advisable to engage in any work of a permanent nature during the coming season.

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I left Edmonton on March 24th, travelling by the Grand Trunk Pacific Railway to the end of steel at Prairie Creek, 183 miles west of Edmonton and three miles from the eastern boundary of the park. At Prairie Creek I was met by Mr. McLaggan and together we made the trip by team through the park, travelling over the tote road built by Foley, Welch & Stewart, contractors for the grading work of the Grand Trunk Pacific, for the purpose of freighting goods to their different camps along the right-of-way.

The first day's travel brought us to the Jasper Park Collieries, near the mouth of Fiddle creek, twenty-two miles within the park by rail and twenty-five miles by the tote road. The park up to this place is practically the entrance to the foot hills, the valley of the Athabaska river being from five to eight miles wide and mostly timbered with spruce and jackpine. An extensive timber limit extends into the park, the timber not being of a very high class for commercial purposes.

One of the purposes of my trip was to investigate the feasibility of establishing a townsite at or near the mouth of Fiddle Creek, about ten miles up which the hot sulphur springs are located. These springs, which I visited on my former trip, are located just east of Mount Roche A'Miette, whose sphynx-like head rises 9,000 feet above the level of the sea and forms a landmark for miles in every direction. The springs are at an altitude of 4,200 feet and are about 1,200 feet above the Grand Trunk Pacific. Two of the cluster of springs boil out of the side of a very high mountain and have a temperature of 116 degrees, which is three degrees hotter than the sulphur springs at Banff. They are highly charged with mineral properties and have a flow equal to the intake of a four inch pipe. There are a number of other springs in the immediate vicinity, one of which has the remarkable temperature of 125 degrees.

The canyon of Fiddle Creek, leading to the springs, is one of the most magnificent pieces of scenery yet discovered in the Rocky Mountains. This canyon towers for hundreds of feet, and in places the channel, worn by the water in past ages and through which it rushes with a mighty roar, is not more than twenty feet in width. To my mind this will become a very attractive place of resort for tourists in the future.

After an investigation of the mouth of Fiddle creek I concluded that it would not be advisable to make any survey of a townsite there until a traverse and survey of Fiddle creek had been made and also of the shortest route by which to pipe the water, which, from my present knowledge, I would consider probably to be at the Jasper Park Collieries, as being the nearest point to the springs and the most convenient to the railway lines. I would also recommend that surveyors be sent in there, during the coming year, with a view to locating a route for a carriage drive from the railway line to the springs, not particularly to locate the shortest route, but one that will give access to the beautiful scenery in the canyons, &c., leading to the springs. There is a very suitable location for a townsite near the collieries, which I consider more advantageous than that at the mouth of Fiddle creek. However, either one would be well adapted for the purpose.

At the Jasper Park Collieries, where we spent the night of March 25, a large amount of development work has been done, considering the fact that the company started operations only about a year ago. At the time of my visit a tunnel had been run 900 feet and was in a solid face of coal. Twenty-five men were employed and development work along different lines is being pushed ahead pending the laying of the steel on the Grand Trunk Pacific to this point. The mouth of the present tunnel is 275 feet above the railway line, and it is the intention of the company to drive another tunnel lower down and only a few feet above the track. The claim consists of 1,080 acres of coal lands on which three seams of fourteen feet, thirteen

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feet and five and a half feet in thickness have been explored for the entire length. The coal is of a very high quality of bituminous, somewhat similar to that found in the Crowsnest Pass, and is especially adapted for steam and domestic purposes.

A test of its cooking qualities was made in a crude stone coke oven built at the mine, the result being highly satisfactory, the product being pronounced equal to the best manufactured anywhere. The company have built excellent quarters for their employees and I found everything in connection with it in first-class condition. They are at present engaged in the construction of a tramway from the tunnel mouth to the railway track and a tippie for loading cars. They expect to be in a position, when the railway reaches this point, to supply all the coal required for the operation of this section of the road, in addition to a supply for shipment east for domestic and other purposes. The company is composed, principally, of local men with some outside capital.

From the townsite at the Collieries, previously mentioned, a magnificent view can be had of the broad valley of the Athabaska, alternating in meadow and clumps of trees, which gives it a beautiful park-like appearance. This with the mountains, including the Roche A'Miette and other peaks, as yet unnamed, forms one of the most lovely scenes imaginable.

I might mention here that in the valley at this point a band of twenty-eight horses lived out during the whole of the past winter, and on the occasion of my visit although they had not been fed anything but what they could rustle for themselves, were fat and sleek and in fit condition to go to work at any time. This would indicate that the climate in Jasper Park is even milder than that farther south. As a matter of fact the lack of snow during the past winter was one of the greatest drawbacks against which the railway contractors had to contend, there being only about three weeks of sleighing and in many cases freighters used wagons the whole season. This is the more remarkable in view of the fact that further east and south the winter was more than usually severe and the snowfall unusually heavy.

Fourteen miles west of the Jasper Park Collieries the Grand Trunk railway line crosses the Athabaska river at a very slight elevation above the water. The concrete piers were being constructed and it is expected that trains will be crossing the river in June of the present year. By that time it is hoped to have the grade completed to the entrance to the Yellowhead Pass, where the line leaves the Athabaska river and follows the Miette river to the summit, and to have the steel laid to this point by the end of July.

After crossing the river the drive up the valley is one of transcendent beauty. The valley is from three to five miles in width and is a natural park partially wooded and partially open grazing land. About eighteen or twenty years ago it was swept by a fire which destroyed almost all the timber, and the young timber, which at places is very dense, is making a very rapid growth. It would appear that nature intended this for the purpose to which it has been devoted.

At places the valley narrows and on rounding some point of rock or foothill new vistas of beauty meet the gaze. At different places the river expands into shallow lakes, the principal of which are Brulé lake and Jasper lake. Fish lake, a beautiful sheet of water, is separated from Jasper lake by a narrow ridge of land over which the line of the Grand Trunk Pacific runs for about three miles.

On either side of the valley are ramparts of hills behind which are towering snow-capped mountains rising in majestic grandeur and overlooking the beautiful valley. What is beyond this first range of mountains is yet unknown and it will for years to come form an inviting field for the adventurous explorer.

Innumerable mountain streams, fed by the glaciers on the mountain tops, come rushing down over waterfalls and rapids to mingle their pure waters with those of the Athabaska. At one place, known as 'The meeting of the Waters,' where a

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number of small streams join the Athabaska, there is a scene of surpassing beauty. The river leaves Jasper lake by seven distinct channels, forming beautiful little wooded islands. These channels unite again to form one broad river. Along the route are a number of places of historic interest.

Nothing remains to mark the site of the old Jasper House, which at one time was a busy trading post of the Hudson's Bay Company, except a pile of stones which formed the rude fire place and some dilapidated graves, with their tumble down and decaying wooden palings and crosses which mark the sleeping places of those who in the long ago spent their lives in this remote part of the west.

The ruins of Henry House, the former headquarters for this region of the North West Fur Company, are just opposite the point where the Maligne river joins the Athabaska and is another point of historic interest, and it seems a pity that these two houses could not have been preserved as relics of the past.

At intervals along the valley are camps of graders and stopping places for freighters and travellers. These I found in good condition and, in general, conforming to the park regulations governing such places.

Forty-eight miles of the valley of the Athabaska from the eastern boundary of the park and at the junction of the Miette and Athabaska rivers is the proposed divisional point of the Grand Trunk Pacific. At present it is named by the Railway Company. 'Fitzhugh,' in honour of the Fourth Vice-President of the Grand Trunk Railway Company. The townsite is located on a level plateau about sixty feet above the valley of the Athabaska river. It is about two miles in length and about a mile in width. It appears to be well adapted for all the purposes of a divisional point and for a townsite on which to locate a tourist resort. The townsite overlooks the beautiful wooded valley of the Athabaska, which here stretches away for miles to the southwest, forming a very lovely picture. The Miette river comes rushing down from the summit of the Pass, fourteen miles distant, to swell the waters of the Athabaska. In the background, in every direction, are towering mountains, and among the hills, at an elevation of about 200 feet above the townsite, is a bench of land with two beautiful little lakes of the purest water. These, in addition to proving a great attraction to tourists, would supply sufficient water for a considerable town, which will undoubtedly grow up here, both from a tourist point of view and as a place of residence for employees of the railway. A survey of a tourist townsite for park purposes will be made during the coming season. This will be the starting point for many tourist parties up the valley of the Athabaska to the falls about ten miles distant. These falls have a sheer drop of eighty feet and are about 150 feet in width. The town will also be on the direct route to Mount Robson, which will be a future mecca for mountain climbers, as being the highest peak and the most difficult of ascent of any in the Rockies.

A contract has been let for the construction of a trail to Maligne lake, a distance of about thirty miles, to be finished before the end of June. This lake has been described by Mrs. Schaffer, of Philadelphia, the only person of note who has ever visited it, as being the most beautiful sheet of water she has seen in fifteen continuous years of exploration in the Rocky Mountains.

Fitzhugh is at present the headquarters for the engineering staff of the Grand Trunk Pacific, also the base of supplies for all construction material for the railway and will remain so until the steel reaches Tête Jaune Cache. The townsite is overgrown with a thick growth of young evergreens, which only require to be thinned out to form one of the loveliest parks imaginable.

I might here mention that the Canadian Northern Railway Company has its line surveyed through the park parallel to and at a short distance from the Grand Trunk Pacific, but as yet has done no grading in the park limits. While the Grand Trunk Pacific enters the park on the east side of the Athabaska river, the Canadian

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Northern railway enters on the west side of the river and does not cross the river at all within the park. In passing through the Yellowhead Pass both lines will traverse the valley of the Miette river, which at places is very narrow, and it would seem that considerable engineering difficulties will be encountered to provide room for both roads. The grade up the Athabaska river valley to the entrance of the Yellowhead Pass is the easiest of any on the continent of America, the grade of the Grand Trunk Pacific from the entrance of the park to the summit being only four-tenths of one per cent, with very little rock work. In fact the construction of the road for this distance presents no more difficulties than building a road over the prairie. The altitude at Fitzhugh is only 3,520 feet and the altitude of the summit, at the highest point of land along the railway line, is 3,715 feet.

I have been repeatedly asked to make a comparison of the attractions of the Jasper Park and the Rocky Mountains Park, but have always refrained from making any such comparison. Both have their distinctive features, which must make them continue, for all time, favourite resorts for tourists from all parts of the world. It is hoped that in a short time the two parks may be united by adding the territory which now separates them, forming one continuous park, the largest in extent, and containing the greatest variety of and the most magnificent scenery in the world.

There are many other matters of which I would like to speak at this time in connection with these parks and the importance of keeping the public in close and intimate touch with our work. I feel that, if we are to attain our highest usefulness in the work we are trying to do, it is absolutely essential that we have the hearty co-operation and sympathy of the people of Canada and that they will see to it that means are not lacking to carry the work to a successful issue.

In conclusion, I wish to express my appreciation of the generous support given to the work by the Honourable the Minister of the Interior, and to congratulate his department on its excellent choice in the appointment of the superintendents of the different parks. These gentlemen have fulfilled their duties faithfully, honestly and in the best interests of the department. Every other official of the department with whom I have had dealings has accorded me the most courteous treatment and all appeared to be anxious to further the interest of what I consider to be one of the greatest assets of the Dominion.

Appended you will find the reports of the superintendents of the different parks under my supervision.

I have the honour to be, sir,

Your obedient servant,

HOWARD DOUGLAS,

Commissioner of Dominion Parks.

No. 2.

REPORT OF THE SUPERINTENDENT OF THE ROCKY MOUNTAINS
PARK.

BANFF, ALBERTA, March 31, 1911.

The Commissioner of Dominion Parks of Canada,
Edmonton, Alberta.

SIR,—I have the honour to submit herewith my first annual report as superintendent of the Rocky Mountains Park of Canada for the fiscal year ending March 31, 1911.

As my appointment did not go into effect until the month of June, 1910, I feel that all the credit for the successful completion of the work is not altogether due to me, as a greater part of the plans and arrangements for the expenditure of the appropriation were made previous to the time I took up my duties here.

I am pleased to be able to report a most successful year in every respect and I have endeavoured to show every detail of the progress of work and conditions.

The amount of cash revenue collected at this office on account of the Mining Lands and Yukon Branch does not equal the collection for 1909-10, but when the payments of the majority of the coal companies on account of rental that were made at Ottawa direct, and which were formerly paid here, are taken into consideration, the increase will be found to be very large.

The Timber and Grazing Revenue shows a gratifying increase and the Forestry Branch Revenue has been much greater. We are not able at this time to ascertain accurately the amounts paid at Ottawa but when those we are certain of are added to our cash revenue it shows an increase of over 37 per cent.

GAME AND FIRE PROTECTION.

The proper protection of our large numbers of some of the very best game in North America will always be a matter of considerable trouble in this locality, until the means are placed in our hands to have a staff of sufficient strength to keep a careful and systematic watch over the main trails leading to and from the Rocky Mountains Park. Although the majority of the tourists and inhabitants appreciate and observe our game laws, there are always a few willing and anxious to take advantage of the absence of the game guardians to kill game within the park limits. One party so disposed can do a great deal of damage in a very short time and I believe our system of giving head guides return seals for the guns in their parties is not a safe and satisfactory method of protection. I hope some day in the near future our appropriation will provide for the maintenance of a game guardian at three different points on the Red Deer river during the summer and fall months, so that all parties must have their guns sealed when returning to the Park.

One party was caught last year in the act of killing Rocky Mountain sheep, and an example was made of him by imposing the maximum fine and confiscating the heads and meat of the two sheep he had killed; and another person in the same party was fined for having an unsealed rifle in his possession.

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We experienced some little difficulty with persons who had suffered from depredations of bears, as under the Park Regulations no one was allowed to carry a rifle unsealed, and they were therefore unable to destroy the animals that were demolishing their property; but there is very little likelihood of such cases arising in the future as we are now working upon a safe and systematic plan whereby these animals may be destroyed.

The appointment of temporary game guardians during the winter months has proved very satisfactory. Seven of these guardians were sworn in late last fall. They are merely allowed to carry unsealed rifles for the purpose of destroying lynx and coyotes. During the past three or four months they have reported killing about thirty coyotes. This is an exceptionally good record for a mountain district.

The past year has seen four convictions for carrying unsealed arms and two convictions for killing game, but I will venture to say that this does not constitute the full list of poachers within the park.

I notice in your last year's report that the sheep and deer were becoming very tame in the town of Banff, and in this connection I might mention that a large flock of mountain sheep have been feeding on the south side of Squaw mountain most of the winter, and the number of deer in the town that were becoming tame last year have become so familiar as to be little less than domestic pets this winter. Numerous times they have been fed in my own yard and could be seen at almost any time.

FIRE PROTECTION.

This branch of the work in connection with every park or forest reserve is without doubt one of the most, if not the most important consideration. One small fire, if not properly guarded against, can in a short space of time convert our present beautifully wooded park into a black and barren waste, drive our game from the country and leave practically nothing but the bare mountains and streams. Although our game and fire guardians have little else to do in the winter than patrol their regular rounds, they have worked early and late during the middle summer and fall and have been constantly on the alert for any fires. They report two fires at the east end of Lake Minnewanka, caused by the negligent campers. One large fire came down from the Brazeau and Ghost rivers to a point near the east end of Lake Minnewanka and we had to send a party of fighters out from here to prevent it getting into the park, which, I am glad to say, was accomplished after considerable work. Our guardians also extinguished deserted camp fires at the mouth of Panther river and on the Bow river, as well as fires of the same nature on the Spray and Kananaskis rivers. This makes a total of seven camp fires extinguished that might have become serious, but when it is understood that there were over twenty large parties of tourists outfitted here during the season, it will be seen that care has been exercised in issuing permits to the men in charge of these parties, as we cannot lay the blame of any of these fires to any of the guides, and it is my opinion that they have exercised commendable care in the location of their camp fires and in putting them out before leaving them.

The source of our greatest danger is from locomotives. We had fire guardians making two trips per day on velocipedes between Banff and Laggan, and one between Banff and Canmore. This is a distance of little more than sixty miles, and in that short distance these men extinguished no less than fifteen fires which they claim were in every case started by the sparks from the engines. However, I may say that the Canadian Pacific Railway Company have aided us this year by putting men to work clearing up all the dead trees and brush on the right-of-way, and if this same spirit of co-operation is manifested during the coming season it will greatly reduce the chances of fires catching from the locomotives.

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In addition to the foregoing there was a fire started on the north side of Sulphur mountains in the neighbourhood of the Middle Sulphur Springs, and we had to call out a large force of men before it was finally put out. I have been unable to ascertain the cause of this fire.

ROADS, BRIDGES AND FENCING.

Between Canmore and the Gap a new Queen truss wooden bridge with planked floor was erected, fifty-six feet over all; and one half mile of the Calgary to Banff coach road completed in the neighbourhood of Exshaw. At Canmore, we built one and a half miles of new road and one new bridge of wood with 30 feet stringers and plank flooring with a driveway 14 feet wide; and another at the same town of practically the same dimensions except that the driveway is sixteen feet wide.

The Bow river bridge at Canmore was replanked a distance of two hundred and fifty feet as well as the fifty foot approaches at each end, making in all 350 feet of new planking on this bridge.

At Stouy creek we erected a wooden bridge fifty-six feet over all, with Queen truss and 14 foot planked driveway. The old Duthill grade was lowered from a 15 per cent to a 6 per cent grade, and a culvert put in the coulee between Duthill and Stouy creek.

In order to avoid the steep hill on the Spray river road it was necessary to grade a new road for a distance of one quarter of a mile. During March of this year we also built a bridge over the Spray river to connect with the trail to the Spray lakes. One span is 45 feet long with small truss and two additional spans of thirty feet each; also two twenty-five foot spans six feet inside, and all planked, with handrail on both sides. This bridge will be used only as a foot bridge and for pack horses, &c.

On the Laggan to Moraine lake road, a distance of about one and a quarter miles was completed, so that there now remains but little over one half mile before the road is completed to the lake. This drive is a very popular one.

Now that the most difficult work in connection with the Banff to Calgary coach road has been accomplished and only grading, gravelling, &c., remains to be done to make it a first-class coach road, it has been deemed advisable to extend this work from Banff to Laggan, thereby making an automobile and coach road from Calgary to Laggan, a distance of about one hundred and twenty-five miles.

At the buffalo paddock, one and a half miles of new wire fencing was erected for the Rocky Mountain sheep inclosures, and three-quarters of a mile of rail fencing rebuilt around the buffalo field. A number of streets were put in first-class shape and the Lake Minnewanka road repaired. Every road at the end of the season was in an excellent state of repair.

TRAILS.

The trail through the Mount Edith pass to the Sawback lakes was impassable last spring, as hundreds of trees were broken and thrown across it by the wind, thus choking it the greater part of the distance to the lakes. The clearing was completed and all stumps and trees on the lower side were cut off low to the ground, and the trail widened to six feet. The Pass is now clear for comfortable travelling direct to the lakes and was in constant use during the summer and fall by large parties of fishermen.

On the north side of Lake Minnewanka the trail was widened and well cleared from one end of the lake to the other, so that parties may now make this trip on horseback, whereas, heretofore, they have been obliged to take the steamer. The length of this trail is fourteen miles and is one of the most beautiful rides in the Minnewanka locality and fills a long felt want.

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An excellent trail was completed to the Spray lakes, 24 miles southeast of Banff. For a number of years this has been in such a shape as to be almost impassable for horses, and the trip was only undertaken by those whose love for good fishing exceeded their fear of hardship and difficulties. Since its completion it has been in constant use during the fishing season. The very best rod fishing within the Rocky Mountains Park is found at the Spray lakes, Cut-throat trout averaging two pounds each rise readily to the fly, and a lover of this kind of sport will be doubly repaid for making this trip to the lakes, which has been made accessible by the building of this trail. It is also possible to go by this trail to the famous Mount Assiniboine (altitude 11,500), which has attained a world-wide reputation for its magnificence and beauty and has lured hundreds of Alpine climbers from all over the world to attempt its ascent, only a few of whom have been successful.

SIDEWALKS AND PATHS.

The increased patronage of Banff by tourists necessitated either the widening of the old plank sidewalk on Banff avenue or replacing it by something more substantial. It was therefore decided to put in a new cement walk, and an appropriation was granted for this purpose. Work was commenced in October and was completed within four weeks. It was built from Buffalo street to Cariboo street, a distance of 750 feet on each side of the road or a total of 1,500 feet of walk twelve feet wide. It adds greatly to the beauty of the thoroughfare, and although the cement was mixed and the walk made late in the fall, when some frost was experienced at nights, it is in excellent condition and has suffered no injurious effects from the extreme cold of the past winter.

In addition to the cement walk, we built 5,000 lineal feet of six-foot cinder paths on streets where there were sufficient residents to warrant the expenditure, so that people are now enabled to walk to their homes without having to wade through mud and water, and it is my intention to continue building these paths during the coming season, where and when required.

TELEPHONE SYSTEM.

Previous to this year our telephone system allowed for about fifty 'phones only, but prior to my appointment arrangements and purchases were made to increase the capacity to one hundred 'phones. This work was completed, so that should occasion demand it, we can supply one hundred subscribers. Although we have more 'phones in use than we had a year ago it will be observed that the revenue does not equal that of the fiscal year 1909-10. This is due to the lowering of the rate for resident phones from \$18 per year to \$15 and business phones from \$36 per year to \$20.

The work for the year consisted in the setting of fifty new cedar poles; stringing new wires; installing a new cable box and cable; and in addition to this, 15 new 'phones and other equipment were purchased.

OTHER IMPROVEMENTS.

One lane was opened in order to allow access to residents who had taken up lots at the foot of Tunnel mountain.

As our animal quarters back of the museum were becoming somewhat crowded, we built six new dens with cement floors and inclosed with heavy $1\frac{1}{2}$ -inch mesh iron wire netting fastened on tubular iron frames; also an octagon-shaped cage for eagles, &c.

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The filling in and sodding of the museum grounds was finished, which has added greatly to its beauty and to the comfort of sightseers who visit the place in thousands. Last season the grass was long enough to be mown and during the coming season I expect to show a beautiful garden spot of this inclosure.

WATER WORKS AND SEWER SYSTEM.

Our work on the water and sewer system consisted chiefly of making water and sewer connections. This winter there were a few cases of frozen pipes where consumers had left their houses vacant and neglected to notify the office to shut off the water. We also had to renew parts of broken sewer pipes; but at the present time the whole system is giving the best satisfaction, with the exception of the intake. Late last fall an engineer was employed to look into this portion of our system and he reported the affair to be of altogether too crude a nature for such a system and recommended certain changes and improvements, such as devices to prevent the intake becoming filled and clogged with sticks, rock and gravel.

There was also considerable diking done on Forty Mile creek to protect the main water pipe from the intake, so that about all the necessary improvements required in this locality are confined to the intake for the coming season.

LOTS AND BUILDING.

This year has seen a great increase in permanent residents and applications for lots; there were fifty new applications and three-quarters of these have already been granted leases in consideration of the buildings erected upon their lots. The erection of these buildings has brought considerable money into the town, and a very conservative estimate of the amount spent on summer cottages and good houses would bring the total to over \$30,000; but, when the different amounts spent on the improvements of their grounds, such as lawns, fences and walks, are taken into consideration, this total would easily reach \$35,000.

In addition to the new residences built, the new Brett hospital was erected at a cost of \$60,000, new Canadian Pacific railway station \$35,000, King Edward hotel addition \$2,000 and the Bauff Springs hotel \$80,000; which brings the total amount spent in Banff on buildings to the pleasing total of \$212,000 or nearly a quarter of a million dollars. To my mind this is sufficient proof of the permanency of Banff as a tourist resort and of its ever-increasing popularity.

I am pleased to report a much better class of buildings erected and fewer \$300 structures than in the past.

In addition to the large number of applications and leases granted for Banff townsite lots, there have been thirteen applications for Minnewanka townsite lots, and a number of these applicants are constructing their buildings.

For a great many years the residents of Canmore have been squatters upon the lots in that town, but this winter the whole ground was carefully gone over and every resident visited and their buildings inspected. This undertaking resulted in the granting of thirty-one leases and fifteen agreements, and it is expected that about twenty more will be granted within the next two months. This will make sixty-six lots under lease or agreement when added to the forty-six already granted, whereas formerly there were not over half a dozen or so. I might add that the Canmore lots (inside) are rented by the government for \$8 per year and corner lots \$9.50, subject to building conditions.

AVIARY.

Since the last annual report we have added one silver pheasant, two golden pheasants, two English ring neck pheasants, one grey horned owl and one golden

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eagle. They are all in excellent condition and are doing as well as a flock of well-cared for domestic fowl. They are inexpensive to keep and add greatly to our list of attractions. I have to report the death of one golden eagle and one of the North American vultures. At the present time we have in the cages the following:—

Grey Horned Owl.	1
North American Vulture.	1
Reeve's Pheasant.	2
English Ring Neck.	4
Golden Pheasant.	3
Silver Pheasant.	3
Lady Amherst.	2
<hr/>	
Total.	16

THE FAUNA OF THE PARK.

All the animals confined in the Museum grounds cages have done unusually well this winter, and aside from the loss of one of the timber wolves, there are practically no losses to report. The wolf that died was the old male which has been in the possession of the park for a number of years, and expired of old age. In your report ending March, 1910, you mentioned five timber wolf puppies, and I wish to state that one of these, I am informed, was killed by the coyotes in the adjoining cage. Two of the remaining four were sold to an officer in the British Army and taken to England, which accounts for these animals. I also notice that you reported three young raccoons, but when I took up my duties here two of these had been killed by the male, but one was saved, however, and is doing nicely, although it had one foot eaten off. We had one female badger presented to the park, and these animals and the kit foxes appear to be doing one hundred per cent better since the new cages were built with the earth floors, which allows them to burrow and make nests under the ground. There are at this writing the following animals in the Museum cages:—

Black bear.	1
Brown bear.	1
Cinnamon bear.	1
Mountain lion.	1
Timber wolves.	3
Coyotes.	2
Kit fox.	3
Red fox.	2
Lynx.	3
Raccoons.	3
Badgers.	3
Marmot.	1
Wolverine.	2
Marten.	2
Mexican orange squirrels.	3
Mexican black squirrels.	2
Fox squirrels.	3
Rhesis monkeys.	2
Guinea pigs.	8
Porcupines.	3
<hr/>	
Total.	49

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I might add that early last spring two Rhesis monkeys were purchased and these proved a great attraction. I was somewhat dubious as to these animals living through our rigorous winters, but I am now satisfied that these specimens can be kept here with more success than they can where the climate is warmer and more changeable. They were confined in the old pheasant house, and at no time was there a fire in the building. During the coldest weather their fur would be covered with frost, but the temperature was never changed except by the influence of the outside weather conditions. It is my opinion that had they been kept warm by artificial heat they would not have lived.

ANIMAL PADDOCK.

Since the seventy-seven head of buffalo were sent from here to Wainwright the remaining ones have shown a marked improvement. The caretaker reports them to be in much better condition now than they were at this time last year and I attribute this to the sufficient pasture afforded them by the lessening of the herd when the shipment was made to Buffalo Park. Seven magnificent three-year-old bulls were delivered to us from the Pablo herd and I expect to see a decided improvement in the progeny now that we have new blood. I have to report an increase of two in addition to the seven delivered from Wainwright, and the decrease of one that was killed and sold. This last was an old hybrid cow, and it is the intention to get rid of all impure stock. This leaves twenty-four head including two hybrids. Every head of all kinds has wintered well, and with the exception of a few deaths everything came through satisfactorily.

The Rocky Mountain sheep have become so tame as to allow the caretaker to feed them by hand. Whereas formerly the tourists asked to be directed to the buffalo they now as a rule request information as to where they can find these sheep.

During the past year we have lost two antelope, one white-tail deer and one kid Angora goat, by coyotes. There has been an increase of four moose, one elk, one white-tail deer, one mule deer and three Angora goats.

Professor Bell, of Nova Scotia, presented us with three Zulu sheep, which are something of a curiosity as they carry four long well-formed horns but otherwise resemble the Angora goat. It will be observed that we have but one mountain goat remaining as another was lost last winter. It is my opinion that these animals will never prove a success here. In their wild state they are seldom if ever found in the same neighbourhood with the Rocky Mountain sheep. The reason for this is not well understood but it is probable they live on a different kind of food from that of the sheep, and then they may require something necessary for their health and life that is not palatable to the sheep. The condition of these two species would bear this out as the sheep are fat, sleek and contented, whereas the goat have appeared to pine away and die. The only other animals not thriving are the antelope. They are still subject to ulcers in the throat and neck, and it appears to me the climate or food is not suitable for them. Since the above was written three of the antelope have been transferred to Buffalo Park.

The caretaker reports 20,365 visitors, which is a large increase over the patronage for 1910.

The following is a complete list of all the animals now in the animal paddock:—

Buffalo males.	16	
Buffalo cows.	4	
Buffalo heifers.	2	
Hybrids.	2	
	—	24
Moose bulls.	9	
Moose cows.	10	
	—	19

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Elk males.	7	
Elk females.	7	
	<hr/>	14
White tail deer buck.	1	
White tail deer, does.	2	
	<hr/>	3
Mule deer, bucks.	5	
Mule deer, does.	4	
	<hr/>	9
Angora goats, male.	2	
Angora goats, female.	4	
Angora goats, kids.	3	
	<hr/>	9
Persian sheep, male.	1	
Persian sheep, female.	3	
	<hr/>	4
Antelope, male.	3	
Antelope, female.	1	
	<hr/>	4
Zulu sheep, male.	1	
Zulu sheep, female.	2	
	<hr/>	3
Mountain sheep, males.	2	
	<hr/>	2
Mountain goat, female.	1	
	<hr/>	1
Total.		<hr/> 92

HOT SULPHUR BATHS.

Notwithstanding the lack of sufficient accommodation for the public (which inadequacy was even more apparent than the previous season) the cave and basin and the Upper Hot Springs contributed an increase in revenue of 25 per cent in excess of the proceeds for the last fiscal year. The caretakers advise me that they have been obliged to turn away hundreds of people who wished to take the baths, as it was absolutely impossible to accommodate them. It is my opinion that this cramped condition of the baths is a matter of such importance as to demand immediate attention and the remedy should not be delayed one day longer than is absolutely necessary. I am attaching a statement of the number of visitors and bathers to be included in the appendices.

SULPHUR WATER ANALYSIS.

It may be of interest to the public to reproduce the report of the analyst of the Canadian government, who says officially:—

The water is free from organic impurities and gives no albuminoid nitrogen. Each gallon contains dissolved sulphuretted hydrogen to the amount of 0.3 grains (equivalent to 0.8 cubic inch).

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The dissolved solids are as follows:—

	Grains.
Chloride (in chlorides)	0.42
Sulphuric acid (SO ₃)	38.50
Silicia (SiO ₂)	2.31
Lime (CaO)	24.85
Magnesia (Mg)	4.87
Alkalis (as Soda, Na ₂ O)	0.62
Lithium	a decided trace.

The temperature of the spring is 114.3 degrees Fahrenheit.

COAL MINES.

The Bankhead Mines Limited, of Bankhead, and the H. W. McNeill Company, Canmore, ran full time for twelve months, and during that time mined a total of 555,040 tons of coal. This makes a total increase of 140,000 tons of coal, so that the expectations published in your last annual report have been fully realized.

CEMENT.

The works of the Western Canada Cement and Coal Company, of Exshaw, have been closed during the last twelve months, but I understand the company intends commencing operations again next month.

Before completing my report I am anxious to acknowledge the efficient and capable work performed by my assistants, as well as the valuable services of the officers of the Royal Northwest Mounted Police in enforcing the park regulations and maintaining law and order.

I have the honour to be, sir,

Your obedient servant,

A. B. MacDONALD.

Superintendent.

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No. 2A.

REPORT OF THE CURATOR OF THE MUSEUM.

ROCKY MOUNTAINS PARK OF CANADA,

BANFF, ALBERTA. April 1, 1911.

The Superintendent
of the Rocky Mountains Park,
Banff, Alberta.

SIR,—The number of visitors during the past year, although not quite up to the previous year, shows a steady increase.

Additions to the exhibits have been a full sized Rocky Mountain goat and an exceptionally fine goat head.

The collection of insects, the work of which has been going on for some years, has been considerably augmented since last year by the addition of about 200 or more moths and other insects, some of which are very rare. This was partly the result of my last season's collecting (1910), during which I used almost every opportunity to increase the value of the insect collection.

The Lepidoptera were gone over and poor specimens replaced by better ones and more uniform labels substituted for the original labels; also more cases were prepared for specimens.

In the classifying of insect specimens I again have to acknowledge my indebtedness for much assistance from Dr. L. O. Howard, Chief of the Bureau of Entomological Branch of the Experimental Farm of Ottawa, through Dr. C. Gordon Hewitt and Mr. Arthur Gibson; also to Mr. Wolly Dod, of Millarville, Alberta, for much valuable assistance in naming Heterocerra.

I have also sufficient material on hand to make up an outside exhibit for the museum, and have been able to supply some of those whose assistance I have received with valuable material.

I am sure the department will not consider unfavourably a small annual expenditure for the purpose of extending the usefulness of the museum as a place of interest to the general public, and that as curator I should be allowed more opportunities of taking collecting expeditions.

During the winter of 1910-11, I numbered and made up a complete list with the common and scientific names and value, &c., of all the specimens in the museum for the Department of the Interior, Ottawa. This naturally took up some time and therefore with my meteorological work as well, I have had a busy winter. The usual amount of information was supplied.

In the weather report appended will be found data of interest.

I am, sir,

Your obedient servant,

N. B. SANSON.

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Number of visitors at the Museum from April, 1910 to March 31, 1911:—

Canada.. . . .	7,344
United States.. . . .	2,555
England.. . . .	506
Scotland.. . . .	172
Australia.. . . .	71
New Zealand.. . . .	56
Ireland.. . . .	33
China.. . . .	29
Germany.. . . .	28
India.. . . .	27
New South Wales.. . . .	16
France.. . . .	9
Wales.. . . .	9
Austria.. . . .	9
Africa.. . . .	9
Hawaiian Islands.. . . .	8
Italy.. . . .	8
Russia.. . . .	6
Switzerland.. . . .	5
Mexico.. . . .	5
Ceylon.. . . .	4
Channel Islands.. . . .	3
Malay Peninsula.. . . .	3
Straits Settlements.. . . .	3
British West Indies.. . . .	3
Cuba.. . . .	3
Philippine Islands.. . . .	3
Hungary.. . . .	2
Spain.. . . .	2
Norway.. . . .	2
Yukon.. . . .	2
Greece.. . . .	2
Isle of Wight.. . . .	1
Tasmania.. . . .	1
Beyrout, Asia Minor.. . . .	1
Sweden.. . . .	1
Isthmus of Panama.. . . .	1
Roumania.. . . .	1
Total.. . . .	10,943

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METEOROLOGICAL TABLES.

MAXIMUM and Minimum Temperatures and the General State of the Weather between April 1, 1910, and March 31, 1911.

Date.	THERMOMETER READINGS.		Weather, &c.
	Maximum for day.	Minimum for day.	
1910.			
April 1....	43.0	18.9	Cloudy; light snow fall.
" 2....	37.0	26.1	Cloudy; Oregon Juncos common.
" 3....	39.3	12.9	Fair; fine day.
" 4....	42.3	27.9	Cloudy.
" 5....	41.1	33.5	Cloudy; rain; moths, &c.
" 6....	40.9	32.7	Cloudy.
" 7....	40.0	25.8	Cloudy; Bow river opening gradually.
" 8....	46.3	29.8	Cloudy.
" 9....	53.8	29.2	Cloudy; Bow river open; roads dry about town; anemone patens in flower; frogs piping.
" 10....	57.0	29.9	Fair; very fine day; wild geese; Vanessa antiopa; grass becoming green.
" 11....	56.9	34.7	Cloudy; flicker.
" 12....	52.4	31.8	Cloudy; catkins on aspens in flower; rain and snow.
" 13....	37.9	29.4	Cloudy.
" 14....	41.1	18.4	Fair.
" 15....	53.3	25.2	Fair; butterflies, &c.; fine day.
" 16....	56.4	35.1	Cloudy; ruby crowned kinglet; fine day.
" 17....	59.0	28.8	Fair; river rising gradually; fine aurora; very fine afternoon.
" 18....	61.1	31.6	Cloudy; bumblebees.
" 19....	65.4	32.6	Fair; water insects; rain; fine day.
" 20....	51.4	39.3	Cloudy.
" 21....	48.9	31.2	Cloudy; lunar corona; first gophers.
" 22....	59.0	37.7	Fair; no snow about.
" 23....	69.5	31.1	Fair; perfect day; very fine night; mallard; osprey; king fisher
" 24....	72.6	37.3	Fair; perfect day; flying ants.
" 25....	75.4	30.5	Fair; very fine day; fine aurora; aspens leafing; fine night.
" 26....	72.8	33.3	Fair; fine day; aurora.
" 27....	60.8	36.4	Cloudy; snow storm; snow thaw rapidly.
" 28....	40.1	33.6	Cloudy.
" 29....	44.5	31.9	Cloudy; snow; San Diego Redwing; Buffle headed duck; grebe; white crowned sparrows.
" 30....	37.1	30.2	Fair; very fine day.
May 1....	47.9	18.3	Fair; perfect day and very fine night; launch on river; Lake Minnewanka ice moving about.
" 2....	54.9	22.4	Fair; perfect day; fine sunset.
" 3....	59.9	23.9	Fair; perfect day.
" 4....	65.5	26.9	Fair; perfect day.
" 5....	71.3	30.1	Fair; very fine day.
" 6....	67.8	34.1	Fair; very fine day.
" 7....	67.0	40.1	Fair; very fine day; Calypso borealis in flower.
" 8....	57.1	39.3	Fair.
" 9....	51.0	27.3	Cloudy; rain and snow.
" 10....	40.3	33.2	Cloudy; light rain.
" 11....	60.8	29.3	Cloudy; fine day.
" 12....	58.7	36.9	Cloudy; fine day though cloudy.
" 13....	58.4	34.7	Clouds; snow flurries.
" 14....	50.2	34.3	Cloudy.
" 15....	50.9	30.4	Fair; fine day; swallow.
" 16....	60.9	27.9	Cloudy; fine day though cloudy.
" 17....	61.8	45.0	Cloudy; rain.
" 18....	46.9	37.2	Cloudy.

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MAXIMUM and Minimum Temperatures, &c.—*Continued.*

THERMOMETER READINGS.			Weather, &c.
Date.	Maximum for day.	Minimum for day.	
1910.			
May 19....	47.7	32.4	Fair.
" 20....	53.1	32.2	Fair.
" 21....	66.5	28.3	Fair; perfect day; many insects.
" 22....	71.5	37.9	Fair; perfect day and night; several flowers in bloom; comet seen;
" 23....	75.6	31.6	eclipse of moon visible.
" 24....	75.6	36.7	Fair; very fine day.
" 25....	71.3	44.4	Cloudy.
" 26....	58.0	41.2	Cloudy.
" 27....	49.2	37.2	Cloudy; rain.
" 28....	57.1	28.8	Cloudy.
" 29....	62.5	42.2	Fair; fine day.
" 30....	61.4	30.9	Cloudy.
" 31....	60.2	41.9	Cloudy.
June 1....	57.8	36.4	Cloudy; rain; thunder and lightning.
" 2....	42.6	29.3	Cloudy.
" 3....	54.5	30.7	Fair; fine night.
" 4....	66.5	33.9	Fair; fine day and night.
" 5....	70.1	32.3	Fair; humming birds; very fine day.
" 6....	62.9	41.7	Cloudy; fine sunset.
" 7....	47.7	33.9	Cloudy; heavy rainfall.
" 8....	62.4	39.8	Cloudy.
" 9....	61.3	35.2	Cloudy.
" 10....	77.0	41.8	Fair; very fine day and night; fine sunset.
" 11....	76.5	38.8	Fair; light rain; fine morning.
" 12....	55.0	43.3	Fair; fine day.
" 13....	66.3	43.3	Fair; fine day.
" 14....	70.4	33.5	Cloudy; fine day and night.
" 15....	74.2	42.2	Fair; fine day and night.
" 16....	66.0	37.0	Cloudy.
" 17....	58.1	45.0	Cloudy; rain; fine evening.
" 18....	59.7	40.2	Fair; very fine day and night.
" 19....	68.2	36.0	Cloudy; heavy thunderstorm; wind.
" 20....	56.9	44.5	Fair; heavy rain; thunder.
" 21....	53.6	38.0	Cloudy; fine night; Bow river very high; wild roses in bloom.
" 22....	61.3	32.0	Fair; fine day and night.
" 23....	58.3	32.0	Cloudy; rain; fine night.
" 24....	68.6	35.0	Fair; very fine day; fine night.
" 25....	74.0	40.5	Fair; very fine day.
" 26....	75.4	40.2	Fair; very fine night.
" 27....	75.0	36.8	Fair; fine day.
" 28....	66.4	41.9	Fair; fine day.
" 29....	66.0	41.0	Fair; fine evening; very fine day.
" 30....	64.7	40.5	Fair; rain; fine afternoon.
July 1....	67.0	42.8	Fair; very fine day and night.
" 2....	63.0	34.5	Fair.
" 3....	63.2	36.0	Fair; light rain; fine morning and night.
" 4....	68.3	36.5	Fair; perfect day; fine night.
" 5....	72.7	34.8	Fair; very fine day and night.
" 6....	70.9	45.5	Cloudy.
" 7....	67.0	52.2	Cloudy; rain during night.
" 8....	69.0	40.8	Fair; fine day.
" 9....	74.7	36.8	Fair; very fine day.
" 10....	70.0	43.5	Fair; very fine day.
" 11....	79.4	39.8	Fair; very fine day and night.
" 12....	84.0	41.2	Fair; very fine day and night.
" 13....	80.0	47.8	Fair; very fine day and fine night; smoky.
" 14....	81.4	46.0	Fair; very fine day; smoky.
" 15....	75.0	52.2	Cloudy; light rain.
" 16....	85.0	44.3	Fair; fine day.
" 17....	84.9	45.9	Fair; light rain; fine day.
" 18....	77.4	46.7	Fair; very fine day.
" 19....	83.4	37.3	Fair; very fine day.
" 20....	84.6	39.0	Fair; very fine day.
" 21....	82.5	41.6	Fair.

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MAXIMUM and Minimum Temperatures, &c.—Continued.

Date	THERMOMETER READINGS.		Weather, &c.
	Maximum for day.	Minimum for day.	
1910.	°	°	
July 22....	74.1	49.3	Cloudy.
" 23....	69.5	48.2	Cloudy.
" 24....	67.1	50.8	Fair.
" 25....	72.2	33.9	Fair; perfect day.
" 26....	62.2	44.8	Cloudy; light rain; thunder.
" 27....	73.5	34.3	Fair; perfect day.
" 28....	68.4	40.1	Fair.
" 29....	71.4	44.3	Fair; very fine day; smoky; light rain evening.
" 30....	77.0	41.0	Fair; very fine day but smoky.
" 31....	75.9	43.0	Fair; very fine day but smoky.
Aug. 1....	70.3	36.7	Fair; very fine day but smoky.
" 2....	70.1	39.7	Fair; very fine day and fine night.
" 3....	73.3	39.9	Fair; very fine day; perfect.
" 4....	64.8	40.5	Cloudy; rain; thunder and lightning.
" 5....	45.3	40.1	Cloudy; heavy rain.
" 6....	67.2	41.7	Cloudy; heavy rain.
" 7....	71.2	39.5	Fair.
" 8....	76.1	38.2	Fair; fine day.
" 9....	74.4	42.0	Fair; thunder; rain.
" 10....	72.0	43.5	Fair; fine day; thunder and lightning.
" 11....	72.9	42.3	Fair; thunder; light rain.
" 12....	70.6	40.3	Fair; fine morning.
" 13....	61.3	45.7	Cloudy; rain; thunder and lightning.
" 14....	55.2	43.1	Cloudy; rain.
" 15....	59.0	42.3	Cloudy; rain.
" 16....	54.7	32.2	Cloudy; rain.
" 17....	67.4	32.8	Fair; very fine day.
" 18....	72.5	34.0	Fair; perfect day.
" 19....	76.4	39.5	Fair; perfect day and night.
" 20....	73.6	57.8	Fair; very fine day and night.
" 21....	63.5	41.3	Cloudy.
" 22....	60.2	43.8	Cloudy.
" 23....	39.1	32.8	Cloudy; snow and rain.
" 24....	54.4	26.0	Fair; very fine day.
" 25....	65.2	26.3	Fair; perfect day; fine night.
" 26....	58.1	28.5	Cloudy; fine day.
" 27....	64.4	28.4	Fair; fine day.
" 28....	57.3	33.8	Cloudy; smoky; light rain.
" 29....	55.3	37.9	Cloudy.
" 30....	56.2	38.3	Cloudy; rain.
Sept. 1....	59.4	40.1	Fair; fine day; very fine night.
" 2....	64.6	31.0	Fair; fine morning.
" 3....	54.9	46.7	Cloudy; rain.
" 4....	58.2	42.8	Cloudy.
" 5....	51.2	40.2	Cloudy; rain.
" 6....	45.0	38.2	Cloudy; rain.
" 7....	40.3	32.8	Cloudy; rain and snow.
" 8....	39.7	31.3	Cloudy.
" 9....	56.1	25.0	Fair; fine day.
" 10....	53.3	29.2	Cloudy; rain and snow.
" 11....	48.3	31.2	Cloudy.
" 12....	56.0	24.3	Fair; fine afternoon.
" 13....	69.5	25.2	Fair; perfect day.
" 14....	73.5	26.8	Fair; perfect day; very fine night.
" 15....	72.6	30.8	Fair; very fine day and night; fine sunset.
" 16....	73.0	36.8	Fair; perfect day.
" 17....	70.5	38.9	Fair; fine day; very fine night.
" 18....	72.4	38.8	Fair; perfect day.
" 19....	76.3	35.5	Fair; perfect day; very fine night.
" 20....	77.4	33.9	Fair; perfect day and night.
" 21....	57.3	34.4	Cloudy; rain during night.
" 22....	61.4	38.8	Cloudy.
" 23....	56.1	39.3	Cloudy; rain with snow at night.
" 24....	37.0	28.3	Cloudy; aurora.

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MAXIMUM and Minimum Temperatures, &c.—*Continued.*

Date.	THERMOMETER READINGS.		Weather, &c.
	Maximum for day.	Minimum for day.	
1910.			
Sept. 25 ..	53.2	21.6	Fair
" 26 ..	54.4	39.2	Cloudy.
" 27 ..	58.0	32.3	Fair.
" 28 ..	53.3	43.5	Cloudy; rain mostly during night.
" 29 ..	50.9	38.9	Cloudy; heavy rain; light rain during night.
" 30 ..	48.5	36.4	Cloudy.
Oct. 1 ..	48.0	36.2	Cloudy.
" 2 ..	46.3	31.0	Cloudy.
" 3 ..	44.1	34.3	Cloudy; rain.
" 4 ..	46.7	31.9	Cloudy.
" 5 ..	50.7	35.0	Cloudy.
" 6 ..	49.2	38.7	Cloudy; rain.
" 7 ..	49.5	38.3	Cloudy.
" 8 ..	59.9	37.6	Fair; warm day with warm wind; fine night
" 9 ..	59.4	41.8	Cloudy; rain mostly during night.
" 10 ..	42.2	34.8	Cloudy; light rain during night.
" 11 ..	41.0	34.3	Cloudy.
" 12 ..	50.1	38.0	Fair.
" 13 ..	55.1	31.7	Fair; very fine day.
" 14 ..	54.5	46.5	Cloudy; a gale; fine sunrise
" 15 ..	62.5	49.8	Fair; very fine day; very fine sunrise and sunset
" 16 ..	61.3	52.8	Fair; very fine sunrise; very fine day.
" 17 ..	48.1	35.2	Cloudy; rain.
" 18 ..	41.2	32.9	Cloudy; rain and snow.
" 19 ..	48.8	24.6	Fair; very fine day.
" 20 ..	52.7	34.2	Fair; very fine sunrise.
" 21 ..	51.9	30.6	Fair; fine day and night; very fine sunrise.
" 22 ..	48.0	41.4	Cloudy; fine morning; fine sunrise.
" 23 ..	42.3	33.3	Cloudy; fine day.
" 24 ..	41.0	32.4	Cloudy; light rain; heavier rain during night.
" 25 ..	41.0	31.5	Cloudy.
" 26 ..	32.5	21.0	Fair; very fine day.
" 27 ..	36.1	7.7	Fair; fine day and night; very fine sunset; skating on ponds.
" 28 ..	44.1	23.5	Cloudy; a gale.
" 29 ..	49.3	37.0	Fair; a gale.
" 30 ..	46.8	26.3	Fair; very fine day.
" 31 ..	42.8	29.3	Fair; fine day and night; fine sunrise.
Nov. 1 ..	39.2	21.2	Fair; shooting stars.
" 2 ..	43.8	32.8	Cloudy; rain during night.
" 3 ..	56.1	27.4	Cloudy.
" 4 ..	37.0	20.0	Fair; very fine day.
" 5 ..	38.0	29.7	Cloudy; snow flurries.
" 6 ..	37.2	30.8	Cloudy; rain and snow.
" 7 ..	44.5	30.8	Cloudy; rain.
" 8 ..	37.2	28.2	Fair.
" 9 ..	26.4	20.5	Cloudy; light snow during night.
" 10 ..	35.0	20.9	Cloudy.
" 11 ..	38.3	31.8	Cloudy; rain and snow.
" 12 ..	34.2	14.6	Fair.
" 13 ..	30.3	13.5	Fair.
" 14 ..	34.2	22.1	Cloudy; fine day; Bow river frozen partly over; fine sunrise.
" 15 ..	32.7	11.6	Fair; fine day; fine moonlight night; very fine sunset; total eclipse of moon visible.
" 16 ..	29.1	9.6	Fair; very fine day and night.
" 17 ..	30.7	18.7	Fair; fine day and moonlight night; skating on Bow river.
" 18 ..	27.2	18.3	Cloudy
" 19 ..	32.7	23.8	Fair; fine mildish day.
" 20 ..	35.4	25.1	Cloudy.
" 21 ..	36.8	32.1	Cloudy; rain and snow.
" 22 ..	34.7	27.2	Cloudy; sleighing, but indifferent; an icy surface on roads, &c.
" 23 ..	32.6	19.4	Cloudy; snow flurries.
" 24 ..	25.0	9.3	Fair; fine day.
" 25 ..	12.1	- 8	Fair; Bow river frozen all over.
" 26 ..	19.3	0.8	Cloudy; fine day.

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MAXIMUM and Minimum Temperatures, &c.—*Continued.*

THERMOMETER READINGS.			
Date.	Maximum for day.	Minimum for day.	Weather, &c.
1910.			
Nov. 27.	18.2	3.4	Cloudy.
" 28.	22.8	5.6	Fair; fine night.
" 29.	16.1	5.7	Cloudy.
" 30.	17.2	8.6	Cloudy; snow flurries; ice on Bow river 9 inches.
Dec. 1.	33.8	15.2	Cloudy; light snow at night.
" 2.	12.9	8.2	Cloudy.
" 3.	13.2	1.8	Fair; snow flurries.
" 4.	34.3	2.2	Cloudy.
" 5.	27.9	6.9	Cloudy; fine sunrise.
" 6.	26.2	11.5	Fair; very fine day.
" 7.	33.7	15.4	Cloudy.
" 8.	32.7	25.2	Cloudy; light snow.
" 9.	27.4	22.3	Cloudy; light snow.
" 10.	22.8	7.9	Fair; fine night; good sleighing on some streets; snow on ground 4½ inches.
" 11.	29.2	5.9	Fair.
" 12.	42.2	24.2	Cloudy; very fine sunrise and sunset; a very fine lunar coronæ; a gale.
" 13.	37.9	30.8	Fair; strong wind; fine night.
" 14.	32.3	18.5	Fair; fine day; very large lunar halo.
" 15.	30.3	18.0	Cloudy.
" 16.	31.2	20.3	Cloudy.
" 17.	29.8	16.0	Fair; fine day and night; snow flurries.
" 18.	35.3	16.0	Fair.
" 19.	27.5	19.6	Fair; very fine day and fine sunset.
" 20.	31.7	19.1	Fair.
" 21.	28.8	20.8	Fair.
" 22.	19.9	6.1	Cloudy.
" 23.	26.1	18.2	Cloudy; snow flurries during night.
" 24.	28.6	21.7	Fair; fine day.
" 25.	30.8	15.8	Cloudy.
" 26.	29.9	25.3	Cloudy; snow during night.
" 27.	21.7	11.2	Cloudy.
" 28.	26.3	11.2	Fair; fine day; sleighing good.
" 29.	28.6	20.1	Cloudy.
" 30.	28.8	13.2	Cloudy; light snow during night.
" 31.	-7.9	-14.5	Cloudy; snow flurries; ice on Bow river about 13 in.
1911.			
Jan. 1.	-12.3	-32.7	Fair.
" 2.	9.1	-23.4	Fair.
" 3.	25.9	6.3	Fair; fine day.
" 4.	33.6	15.0	Cloudy.
" 5.	32.7	28.2	Cloudy.
" 6.	35.7	28.4	Cloudy; light snow during night.
" 7.	29.9	23.2	Cloudy.
" 8.	20.2	-4.2	Cloudy; light snow; heavier snow during night; very stormy.
" 9.	-20.7	-26.0	Cloudy; light snow; very stormy.
" 10.	30.1	-33.3	Cloudy; light snow; very stormy.
" 11.	28.4	-32.8	Cloudy; light snow; stormy.
" 12.	-31.0	-36.5	Cloudy; light snow; wind dropped.
" 13.	3.8	-36.5	Fair.
" 14.	5.0	-14.3	Fair; fine day; large lunar halo; snow on ground 9 inches.
" 15.	14.2	-6.3	Fair.
" 16.	20.2	3.2	Fair; fine day.
" 17.	31.0	13.2	Cloudy.
" 18.	9.4	-1.6	Cloudy; light snow; heavier snow during night.
" 19.	25.9	1.2	Cloudy.
" 20.	23.3	8.2	Fair; light snow during night.
" 21.	18.3	-6.6	Cloudy.
" 22.	20.1	10.7	Cloudy; stormy.
" 23.	22.2	17.2	Cloudy; snow flurries.
" 24.	26.2	3.0	Cloudy; light snow during night.
" 25.	-5.0	-18.0	Fair; snow flurries.

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MAXIMUM and Minimum Temperatures, &c.—*Continued.*

Date.	THERMOMETER READINGS.		Weather, &c.
	Maximum for day.	Minimum for day.	
1911.			
Jan. 26	-14.8	-24.0	Cloudy; light snow; very stormy morning.
" 27	18.0	-3.2	Cloudy; light snow; heavier snow at night.
" 28	25.8	13.0	Cloudy.
" 29	21.6	5.7	Cloudy.
" 30	30.9	17.0	Cloudy; light snow during night.
" 31	-2.8	-8.2	Cloudy.
Feb. 1	-15.6	-18.1	Cloudy; light snow; strong wind.
" 2	17.2	-27.5	Fair; ice on Bow river as cut about 24 in.
" 3	22.7	12.2	Cloudy.
" 4	24.0	10.9	Cloudy.
" 5	31.3	13.2	Fair.
" 6	25.2	13.6	Fair; fine day.
" 7	23.6	10.8	Cloudy.
" 8	24.1	5.9	Fair; very fine day.
" 9	33.7	16.2	Fair; very fine day and night.
" 10	32.8	17.8	Fair; very fine day and night.
" 11	35.6	12.6	Fair; very fine day; thawing; light snow during night.
" 12	28.3	18.4	Fair; fine day and night.
" 13	27.7	6.9	Cloudy; fine day; many Clarke's nutcrackers about.
" 14	28.3	4.8	Fair.
" 15	20.7	7.0	Cloudy.
" 16	21.7	-8.3	Cloudy.
" 17	25.0	4.7	Fair; fine day.
" 18	24.3	-7.3	Fair; perfect day and fine night.
" 19	24.3	-15.3	Fair; very fine day.
" 20	24.4	14.1	Fair; very fine afternoon.
" 21	32.0	-12.8	Fair; very fine day and night.
" 22	31.3	-8.2	Fair; very fine day and fine night.
" 23	36.2	-4.0	Fair; very fine day.
" 24	27.2	20.4	Cloudy; snow.
" 25	23.0	-2.3	Cloudy.
" 26	18.6	-5.2	Fair; fine afternoon.
" 27	27.0	8.3	Fair; very fine day.
" 28	36.1	-4.4	Fair; very fine day.
Mar. 1	41.3	5.1	Fair; very fine day; thaw.
" 2	41.0	14.3	Fair; snow during night; fine day; thaw; ice on Bow river, 30 inches thick.
" 3	31.9	20.8	Fair; fine afternoon and night.
" 4	34.9	2.9	Fair; very fine day.
" 5	34.4	5.0	Cloudy.
" 6	40.8	20.5	Cloudy; sleighing becoming bad in places; thaw.
" 7	40.2	30.7	Cloudy; light rain and snow; thaw.
" 8	34.7	27.8	Cloudy.
" 9	34.4	25.7	Cloudy.
" 10	32.6	27.7	Cloudy; snow flurries; light snow during night.
" 11	32.0	21.2	Cloudy.
" 12	39.8	23.3	Fair; fine sunset; a gale.
" 13	42.6	33.8	Cloudy; a full gale; a 96 to 100 miles an hour wind for 5 minutes on Sulphur mountain.
" 14	29.9	18.9	Fair; very fine day; wheeled vehicles in use.
" 15	45.6	17.8	Fair; perfect day.
" 16	45.2	22.7	Fair; very fine day.
" 17	43.8	14.5	Fair; fine day; fine sunset.
" 18	47.6	29.9	Fair; very fine day; fine night; fine sunset.
" 19	50.0	38.5	Fair; very fine day; aurora.
" 20	49.4	36.9	Fair; very fine day; robins and mountain blue birds.
" 21	37.0	28.8	Fair.
" 22	32.1	26.3	Fair; very fine day; Bow river opening.
" 23	50.0	29.4	Cloudy; light rain; aspens budding; Juncos.
" 24	35.4	29.5	Cloudy; snow flurries; fine sunrise.
" 25	34.8	23.2	Cloudy; town roads drying.
" 26	36.7	13.1	Fair.
" 27	38.2	24.0	Fair; fine day.
" 28	44.2	31.8	Cloudy; a gale; thawing.
" 29	48.0	36.6	Cloudy.
" 30	42.1	28.3	Cloudy; light snow during night; duck on river; water ouzels.
" 31	31.1	21.7	Cloudy; light snow during night; chipping sparrows.

N. B. SANSON,
Observer.

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VISITORS AT THE PARK.

ANALYSIS OF NATIONALITIES OF VISITORS TO BANFF SPRINGS AND HOTELS.

Number of visitors at the Upper Hot Springs from April 1, 1910, to March 31, 1911:—

Canada.. . . .	14,223
United States.. . . .	1,064
England.. . . .	86
Scotland.. . . .	27
Ireland.. . . .	14
Australia.. . . .	33
South Africa.. . . .	6
Germany.. . . .	9
China.. . . .	4
Denmark.. . . .	9
Ceylon.. . . .	1
South America.. . . .	1
Total.. . . .	15,477

Caretaker's report giving number of visitors and bathers, cave and basin, April 1, 1910, to March 31, 1911:—

Canada.. . . .	5,020
England.. . . .	454
Scotland.. . . .	230
Ireland.. . . .	40
New Zealand.. . . .	60
Australia.. . . .	25
South Africa.. . . .	12
India.. . . .	9
Ceylon.. . . .	2
Samoa.. . . .	1
Honolulu.. . . .	3
Fiji Islands.. . . .	2
United States.. . . .	8,487
Mexico.. . . .	5
China.. . . .	21
Japan.. . . .	19
France.. . . .	13
Germany.. . . .	15
Sweden.. . . .	17
Switzerland.. . . .	13
Visitors.. . . .	14,448
Bathers.. . . .	14,084
Total.. . . .	28,532

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Guests registered at the Sanitarium Hotel, Banff, from April 1, 1910, to March 31, 1911:—

Canada.. . . .	5,113
United States.. . . .	2,208
England.. . . .	404
Scotland.. . . .	198
New Zealand.. . . .	121
China.. . . .	11
South Africa.. . . .	43
Australia.. . . .	80
Honolulu.. . . .	3
Japan.. . . .	18
Ireland.. . . .	142
Denmark.. . . .	8
India.. . . .	2
Holland.. . . .	13
Germany.. . . .	43
Chili.. . . .	6
Italy.. . . .	25
Switzerland.. . . .	69
France.. . . .	61
Austria.. . . .	17
Philippine Islands.. . . .	12
Mexico.. . . .	6
Total.. . . .	8,603

Number of visitors registered at the King Edward Hotel from April 1, 1910, to March 31, 1911:—

Canada.. . . .	4,263
United States.. . . .	3,567
England.. . . .	100
Scotland.. . . .	28
Ireland.. . . .	19
Switzerland.. . . .	2
New Zealand.. . . .	18
Australia.. . . .	4
South Africa.. . . .	5
Japan.. . . .	4
India.. . . .	1
Germany.. . . .	12
Austria.. . . .	3
China.. . . .	9
Norway.. . . .	10
France.. . . .	20
Italy.. . . .	10
Egypt.. . . .	1
Total.. . . .	8,079

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Number of visitors registered at the Alberta Hotel from April 1, 1910, to March 31, 1911:—

Canada.. . . .	4,310
United States.. . . .	1,702
England.. . . .	275
Scotland.. . . .	232
Ireland.. . . .	140
Sweden.. . . .	26
New Zealand.. . . .	68
Australia.. . . .	10
China.. . . .	30
France.. . . .	4
Germany.. . . .	10
Total.. . . .	6,807

Number of visitors registered at the Grand View Villa, April 1, 1910, to March 31, 1911:—

Canada.. . . .	3,400
United States.. . . .	685
England.. . . .	142
Japan.. . . .	1
Ireland.. . . .	68
China.. . . .	6
Scotland.. . . .	74
Australia.. . . .	45
France.. . . .	32
Holland.. . . .	4
New Zealand.. . . .	40
Austria.. . . .	5
Mexico.. . . .	3
Total.. . . .	4,505

Number of visitors registered at the Hot Springs Hydropathic Hotel from April 1, 1910, to March 31, 1911:—

Canada.. . . .	1,200
United States.. . . .	410
England.. . . .	74
Scotland.. . . .	100
New Zealand.. . . .	30
Germany.. . . .	28
Australia.. . . .	60
Ireland.. . . .	80
Austria.. . . .	18
Total.. . . .	2,000

Visitors registered at the Lake Louise Chalet from April 1, 1910, to March 31, 1911:—

Canada.. . . .	2,508
United States.. . . .	5,896
England.. . . .	461
Scotland.. . . .	65
Ireland.. . . .	13

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Japan.....	7
Russia.....	2
France.....	27
Cuba.....	1
Australia.....	106
India.....	24
Holland.....	5
China.....	12
New Zealand.....	35
Honolulu.....	26
Denmark.....	1
Germany.....	16
South America.....	2
Switzerland.....	3
Italy.....	6
Africa.....	7
Austria-Hungary.....	4
Belgium.....	3
Mexico.....	1
Norway.....	1
Spain.....	1
Unlocated.....	154
Total.....	9,387

Number of visitors registered at the Park Hotel during the months of July, August and September, 1910. Closed remainder of year:—

Canada.....	480
United States.....	92
Total.....	572

Number of visitors at the Homestead, (Temperance House,) from April 1, 1910, to March 31, 1911:—

Total.....	520
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N.B.—Note of nationalities not available.

Number of visitors registered at the Mount Royal Hotel from May 15, 1910, to September 30, 1910. Closed remainder of the year:—

As the hotel is closed at this time we are unable to secure the registers but I have been advised by the best authority that there were a great many more people accommodated than during the previous season and although I am sure the increase was more than five hundred I have added this to the last year's report which would make a total of 6,963.

SUMMARY.

Sanitarium.....	8,603
King Edward Hotel.....	8,076
Alberta Hotel.....	6,807
Grand View Villa.....	4,505
Hot Springs Hydropathic Hotel.....	2,000
Lake Louise Chalet.....	9,387
Banff Springs Hotel.....	9,961
Park Hotel.....	572

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Homestead (Temperance).....	520
Mount Royal Hotel.....	6,963
Summer cottagers.....	2,100
Estimated excursionists not registered.....	4,000
Total.....	63,494
Season 1910-11.....	63,494
Season 1909-10.....	56,452
Increase.....	7,042

No. 3.

REPORT OF THE SUPERINTENDENT OF YOHO AND GLACIER PARKS.

FIELD, B.C., March 31, 1911.

HOWARD DOUGLAS, Esq.,
 Commissioner of Dominion Parks,
 Edmonton, Alberta.

SIR,—I have the honour to submit herewith my second annual report as superintendent of the Yoho and Glacier Parks for the fiscal year ending March 31, 1911.

YOHO PARK.

During the month of May last, bahn of gilead trees were planted twelve feet apart on the south side of Kicking Horse avenue, in the townsite of Field, from the eastern corner of block 1 to the western corner of lot 4 in block 2; on the east side of First street east from Kicking Horse to First avenue; on the south side of First avenue from the eastern corner of lot 3, in block 4, to Centre street; on the north side of First avenue from First street east to Centre street. I am pleased to say that this has done much to beautify the townsite, and has also encouraged the residents to pay more attention to the beauty of their lawns and homes in general.

A lease has now been issued (excluding block 3) to every property holder who has complied with the building conditions with the exception of three who have thus far been unable to produce the necessary evidence of ownership. Those who have received their leases have expressed themselves as being well satisfied with the rental and other conditions.

A small amount of clearing and grading was done on First street west for the convenience of the people who built cottages in this vicinity during the summer of 1909. Some gravelling also was done on the east end of Kicking Horse avenue.

Owing to the unusual number of snow and mud slides during the spring of 1910 much work was rendered necessary in the way of general repairs. No less than three slides crossed the Emerald lake drive, through two of which a driveway had to be made and much dead timber and rock removed. On the Yoho drive I also made a passage through three snow slides of considerable size; and another, in the neighbourhood of thirty feet deep and two hundred yards long, was partially left to gradually melt away, although passage over it was sometimes precarious.

Close to twelve miles of trail were repaired during the year; the fallen timber being removed as well as the boulders left by mud and snow slides. Six miles of new trail were constructed in the southern portion of the park, from the Kootenay trail * to Fish lake, affording the sightseer a chance to try his luck with fly or minnow.

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The work of clearing up the dead timber in close proximity to the drives was continued this year. The natural bridge drive was entirely cleared of fallen timber within thirty feet of each side, and the Emerald lake drive, from a point within a half mile of Field, where I suspended work last year, to within a few hundred feet of the junction of the Emerald lake and natural bridge drives, was treated in the same manner. On the Yoho drive progress in this respect was slower, the timber being heavier; so we were only able to add approximately half a mile to last year's work.

Three dozen rustic seats were constructed and placed at different points on the Emerald lake and Yoho drives where the scenery appeared most grand.

A diversion in the Yoho drive, a distance of one mile, was completed through heavy timber and rock. I would mention particularly a portion of this diversion, a length of twelve hundred feet situated on the sloping bank of the Yoho river, which was almost entirely rock work. This was constructed in a little less than four weeks with a gang of men at no time exceeding twenty-five in number.

Considerable repair work will be necessary on this piece of road each spring, for a few years at least, as the clay and rock from the embankment above will be almost sure to keep sliding down until the slope becomes more gradual. This practically completes the Yoho carriage road from Field to the foot of the Takakkaw Falls, a distance of twelve and a half miles, and, after the general repair work has been done this spring, one will be able to make this trip from Field and return in from three to four hours.

It was not unusual last year to see from thirty to fifty people studying the beauties of the valley from the end of the carriage road, which speaks well for its future when its rare scenic worth becomes more widely known.

A drive road was constructed during the months of May and June 1910, from the Emerald lake drive to the natural bridge, a distance of approximately one mile. Needless to say, few people who visit Field now go away without first taking this short and pleasant drive to see the world-famed 'Natural Bridge.' With your approval it is my intention to this year complete a return carriage road from the natural bridge to connect with the Emerald lake drive near Emerald creek, in the neighbourhood of a mile and a half from Emerald lake. This will enable the tourist to see the natural bridge without traversing the same road twice, or, in other words, they will be able to go to Emerald lake via the natural bridge and return via the Emerald lake road or vice versa. I will also connect the Yoho drive with the old grade of the Canadian Pacific railway from Field to Hector, as well as extend the former to a point in view of the Twin Falls, a distance of four miles.

It has been officially announced that the Alpine Club of Canada will hold their sixth annual camp in the meadows above Sherbrooke lake. In this connection I would respectfully suggest that a trail be built from Hector station to the point mentioned, a distance of two and a half miles. This trail would not only be used by the Alpine Club, but, I am sure, would become a popular route for tourists.

The most material of the recommendations I have to make in this report is that of providing proper drainage in the townsite of Field, and necessarily, if this be done, a water service for fire protection and for domestic use. The drainage system might, however, be established in connection with the water service of the Canadian Pacific Railway Company. It is essential that some system of drainage be provided in Field if it is to become worthy of its situation, the 'Gateway' to the beautiful Yoho valley.

GLACIER PARK.

The trail from Nakimu caves over the summit between Hermit range and Mount Cheops and down Bear creek to Rogers pass, on the line of the Canadian Pacific Railway, was completed; so that it is now possible to make the round trip from the Glacier House to the caves and return via Rogers pass, a distance of fifteen miles.

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Some repair work was done at the Caves, but progress was not what it should have been, on account of high water, which rendered it impossible to make any extensive improvements to the main entrance.

With your approval it is my intention to construct this year a drive road from the Glacier House to the Cougar valley. It is my ambition to get within walking distance of the caves, a distance of five miles, this year providing we do not encounter any great amount of rock work.

In conclusion I desire to acknowledge the faithful work done by the foremen who worked under my direction during the last year.

I have the honour to be, sir,

Your obedient servant,

G. E. HUNTER,

Superintendent.

No. 4.

REPORT OF THE SUPERINTENDENT OF JASPER PARK.

STRATHCONA, ALBERTA, April 1, 1911.

HOWARD DOUGLAS, Esq.,

Commissioner of Dominion Parks,
Edmonton, Alberta.

SIR,—I beg to submit herewith my first annual report as Acting Superintendent of Jasper Park for the fiscal year ending March 31, 1911.

At the time I was placed in charge of this work Jasper Park was entirely new and undeveloped. The line of the Grand Trunk Pacific was located, crossing the park from east to west, but work on contract had not been started.

There were at that time seven squatters located along the Athabaska river within the boundaries of the park, six of whom have since been settled with by various sums paid for improvements, amounting to \$5,025. They have all removed outside of the park. I am pleased to say that settlement was reached with these squatters by mutual agreement between myself and them, on February 19, 1910, and all have carried out the terms of agreement very satisfactorily and seem to be satisfied with the treatment received from the department. There is still one squatter occupying land in the park, namely, L. J. Swift, who has refused offers of settlement so far.

When work started on construction of the Grand Trunk Pacific it was found necessary that stopping places should be established at suitable points in the park to accommodate the travelling public, and with this end in view there have been eight places allowed, with restaurant, sleeping and stable accommodation, there being room for eight hundred teams in these places during the past winter.

Three blacksmith shops, three general stores, one butcher and one veterinary license have also been issued. This, with railway construction camps, has given ample accommodation for freighters and travellers. Due care has been taken in the selection of those obtaining permits, and business has only been allowed where absolutely necessary. It has been my endeavour to keep out any questionable business or gambling places. This was, of course, in keeping with the park regulations.

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Considerable work has been done on the line of the Grand Trunk Pacific during the year. The right-of-way has been cut and burned, and grading is well under way there being some sixty miles of railway in the park.

The contractors, Messrs. Foley, Welsh & Stewart, have built a wagon road through the park along the railway, part of which runs through some of the best mountain scenery in the park, making it very easy and pleasant travelling for tourists and others coming west this season.

We have had two game guardians, who were also fire rangers, working in the park during the past year, and have erected buildings at mile 113 on the Grand Trunk Pacific with stable accommodation for four horses, and house 16 x 18 suitable for a fire ranger or game guardian for the present. Steps have also been taken to secure buildings at mile 85.

We have been able during the year to open a pack trail leading from the Grand Trunk Pacific at mile 85 to the Hot Springs, a distance of about fourteen miles. This makes travelling to the Hot Springs very much easier than by the old trail. Steps have been taken to locate a wagon road to the Hot Springs, but as this is very important work and there seem to be two possible routes, both of which would be rather expensive, I am not in a position to recommend either. I beg to say, however, that a road can be built from mile 85 near the coal mine, crossing country to Fiddle creek and up the creek valley to the springs. This road would be longer but would cost less. The other route might start from the railway near Fiddle creek following the sides of the valley, some of which would have to be cut into the sides of the mountains, and would have some pretty bad grades to contend with, and would be very expensive, but this road would lead through some very fine mountain scenery and would pass near the now celebrated lower Fiddle creek canyon which, to my mind, would justify any extra expenditure needed to complete the road. This work, however, would need to be looked over by a competent engineer before being undertaken.

I may say that during the past year some very fine canyons, lakes and waterfalls have been discovered which, with the hot springs, sulphur springs and other attractions known to exist, stamp Jasper Park already as one of the greatest of the Canadian Parks. And since it is as yet almost entirely unexplored, and since its known scenic features combine mountains, lakes, rivers and waterfalls, intermingled in such a way that its beauty is beyond the power of pen to describe, its future possibilities seem limitless.

There were quite a number of wild animals seen during the past year, consisting of mountain sheep, goats, deer, bear, beaver, otter, marten and fox, some of which seem quite tame.

Fish, consisting of mountain and rainbow trout, jackfish and whitefish, were reported plentiful in the lakes and creeks during the summer season.

Game guardians have sealed all firearms in the park so far as known, and I am pleased to say that very few reports have been received of infractions of the game regulations.

We have been very fortunate in the matter of fires, there being only one place in the park where fire got away from the right-of-way while burning was being done, and it only burned over about five acres of scrub timber.

There seems to be a considerable area of coal-bearing lands on both sides of the railway on the eastern slope of the mountains, some of which is being developed at mile 85, Grand Trunk Pacific west of Fiddle creek, by the Jasper Park Collieries Company.

There are also graphite claims being developed near mile 126, and limestone quarries located near mile 110.

I am pleased to note that the winter season seems to be more moderate than farther east, owing to prevailing west winds. There was very little snow during the

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past winter; indeed, I might say that the freighters have used wagons all winter, and government pack horses, running out in the park, have wintered fairly well without feed or care.

I am pleased to say that I have found railway contractors, Grand Trunk Pacific engineers, coal miners and the general public very careful in regard to park and game regulations; also in the matter of fires, and I wish to state that the game guardians, fire rangers and myself have received very substantial help in many ways from contractors, engineers, miners, Royal Northwest Mounted Police and others during the year.

I also wish to say that the game guardians and fire rangers have been very faithful in the discharge of the work assigned to them, which, owing to the unorganized state of the park and the great number of people engaged in railway work, has been somewhat difficult at times.

I also wish to express the appreciation I feel for the able support received from yourself and all officials in connection with the park and forestry branch during the past year and hope the department may take up the matter of developing and improving what nature has already done to make this the great pleasure ground of Canada.

Your obedient servant,

J. W. McLAGGAN,

Acting Superintendent of Jasper Park.

No. 5.

REPORT OF THE SUPERINTENDENT OF BUFFALO PARK.

WAINWRIGHT, ALBERTA, April 1, 1911.

HOWARD DOUGLAS, Esq.,

Commissioner of Dominion Parks,

Edmonton, Alberta.

SIR.—I have the honour to submit my first annual report as Superintendent of Buffalo Park for the fiscal year ending March 31, 1911.

Due to the exceptionally fine weather prevailing in the early spring of last year, I was enabled to have the grounds around the park headquarters all cleaned up, besides having the brush cut and burned off the drive-way which leads from the park to the superintendent's house and which continues on towards the town of Wainwright. As soon as the frost was out sufficiently to allow the ground to be ploughed, this road was graded the entire distance, about a mile and a quarter.

In the early part of the summer we procured about 3,000 evergreen trees along the Grand Trunk Pacific west of Edmonton, which we set out around the grounds and along each side of the drive-way leading to the park. These trees have done very well, but it was found necessary to have the grounds and drive-way fenced to prevent the stock from damaging them.

The buildings at headquarters and at the park entrance were all painted, which has materially improved their appearance.

During the latter part of June and the month of July, the fire-guards around and across the park, which were broken in 1908-09 were all back-set, and a new guard, twenty feet in width, broken around the entire park on the inside of the fence, also

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a number of other shorter guards to better protect the winter feed grounds and stack-yards, which makes now about 170 miles of guard, twenty feet in width, which, to keep in proper shape, will have to be thoroughly worked up each year. When you consider that it takes three widths of a four-horse disc to make the width of the guard, and that it requires three cuts or more to properly cultivate the ground, you will realize that it means travelling 510 miles to cover the ground once, or about 1,600 miles to complete the job. As this work should be done during the last half of June and the first part of July, to get the best results, it would take three four-horse outfits, making eighteen miles a day each, to complete the work in the proper time, and as these teams would have to camp right on the job it would require another team to move camp and supplies.

Owing to the mild winter of 1909-10, the buffalo were able to range out nearly all through it, consequently we carried over more than a thousand tons of hay. Having more on our meadows than we required this year, I was able to let it out on shares, which gave us about 250 tons without any cost whatever to the department.

Our hay meadows being of a muskeggy nature, it was found necessary to drain them so as to get the hay off in the proper season. Last fall I had several ditches put in, which will carry off all the surplus water. By putting in a few head-gates in these ditches we can, in dry seasons, easily irrigate the whole meadow.

Putting in these ditches made it necessary to build a number of small bridges, which was done last fall.

This spring, it is my intention (subject to your approval) to have a cottage erected for the men at the winter quarters, also a new stable for the horses, as the present accommodations are entirely inadequate.

Before another winter sets in we should improve on our system of watering the buffalo; at present we have to keep holes open in the lakes, which, as the ice thickens makes it very hard to maintain a supply for the animals. I would suggest that at each of the winter feeding grounds, we sink a well and erect a wind-mill for this purpose.

The telephone installed last year, between the superintendent's house and the winter quarters, has proved a great convenience, having saved us many a long ride. I would suggest that we extend this line to connect with the gate at the south entrance to the park, which would better enable us to keep track of parties going through the park.

ANIMALS IN THE PARK.

With the several shipments of buffalo from Montana and elsewhere and the natural increase since coming to the park, there are now over 800 head in the herd, all of which are in a healthy thriving condition and may be seen at any time during the summer, in half a day's ride from Wainwright, roaming amongst the bluffs, following out the old trails made by their ancestors many years ago, or quietly reposing in some wallow, the land-marks of the vast herds that roamed these parts in days gone by.

Before winter sets in we throw our gates into the winter-quarters open, and without any extra help, we gradually and quietly drift the various herds in, till there are none left in the main park but a few old stragglers that have been driven out of the herd. These are gathered in later, with no inconsiderable trouble and sometimes danger to the riders.

As you are well aware, there are quite a number of these old bulls; and as there is a possibility of an increase in the herd of from 200 up each year, you will see the necessity of making an early start to dispose of the surplus males.

I would suggest that about the end of December, when they are in their best fur, a number of these bulls be killed off, the killing to be done by the superintendent or under his direct supervision.

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This year we were able to secure a number of elk and young moose which gives us the nucleus of a fine herd in each of these species. As these animals are very dangerous at certain seasons of the year, I think it would be advisable to lay out and fence a separate inclosure, where visitors to the park may see them without driving amongst them. We also secured a number of young antelope, but have had very poor success in raising them, only three being left alive. The deer inclosed in the park when the fence was built have evidently done very well. Though we have not got an accurate account of them, we have seen several fawns during the fall.

The animals now in the park are as follows:—

Buffalo, 809; increase 110, loss 7; elk, 7; moose, 11; deer, estimated, 35; antelope, 2. (Since time of writing 3 more have been transferred from Banff.)

VISITORS TO THE PARK.

Though it was not till July 1 last, that the Grand Trunk Pacific put on a through passenger service, the number of visitors to the park has exceeded all expectation. The diary kept by the gate-keeper shows that about 1,800 visitors passed through the gate since April 1, 1910, among them being some well known tourists. One of these, a prominent member of the American Bison Society, after spending a day in the park, remarked that it was the best day he ever put in. Leaving Wainwright in the morning on a small pony, he rode about 35 miles and returned in time to catch the afternoon train. On his trip through the park he saw about 400 of the buffalo, besides the elk, moose, antelope and a few of the deer, to say nothing of the thousands of ducks and chickens, which abound in the park. By a strict enforcement of the park regulations, the park will in time become a great breeding ground for the feathered game of the prairies, as those within its confines already appear to know they are protected.

In the not very distant future, when the prairie chicken has disappeared from other parts, the Buffalo park and the country immediately surrounding it will be the only place in the province where these birds will be found.

In conclusion, I may state that I have, since assuming charge here, been exceedingly careful in expending the money intrusted to me and that I have at all times endeavoured to get full value for every dollar expended.

I am, sir,

Your obedient servant, .

EDWARD ELLIS.

Superintendent.

No. 6.

REPORT OF THE SUPERINTENDENT OF ELK ISLAND PARK.

ELK ISLAND PARK, ALBERTA, April 1, 1911.

The Commissioner of Dominion Parks,
Edmonton, Alberta.

SIR,—I beg to submit my first annual report as Superintendent of Elk Island Park, for the fiscal year ending March 31, 1911.

The animals in the park are in fine condition. We have forty-eight buffalo altogether. The increase for the year was six, and there were no losses. Judging by the tracks this winter there has been a very large increase in elk and deer, and we know there are five fine moose in the park, two of which were put in last summer (two-year olds); also one fine two-year old female elk was put in last fall.

During the year, visitors to the park numbered 1,128. During the summer it seems to be a favourite place to spend Sunday, large numbers driving from Fort Saskatchewan and Lamont. Some automobile trips were made from Edmonton, but as the roads are not very good in some sections near the park, few automobilists care to go over them.

Last spring, fire got into the park and killed some young timber, and so to protect the fence, we had the brush cut and burned twenty feet in width on both sides of the fence all the way round, a total distance of sixteen miles.

This winter, we had nine hundred tamarack posts cut and delivered, also four tons of wire for the purpose of building, as soon as the spring opens up, a fence across the park in order to keep the buffalo on the open land, where visitors will have a chance to see them at any time.

There is excellent pasturage in the park. All the hay for winter feed for the buffalo was cut inside the park.

The number of animals in the park on March 31, 1911, is as follows:—

Buffalo.. . . .	48
Elk.. . . .	28
Deer.. . . .	30
Moose.. . . .	5

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Your obedient servant,

ARCH. COXFORD,

Superintendent.

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No. 7.

REPORT OF THE SUPERINTENDENT OF WATERTON LAKES PARK.

WATERTON MILLS, ALBERTA, March 23, 1911.

HOWARD DOUGLAS, Esq.,
Commissioner of Dominion Parks,
Edmonton, Alberta.

SIR,—I have the honour to submit herewith my first annual report on matters pertaining to the Waterton Lakes Park.

This portion of the Rocky Mountains is one of particular interest. The foot hills covered with wild flowers, the rivers cold and clear, the deep blue lakes and the great back-ground of the high mountains form a most attractive landscape.

The southern boundary is six miles along the International line and joining the United States Glacier Park. It is nine miles long, making fifty-four square miles. The greater portion of this area is mountainous. There is about fifteen square miles of grazing land.

There are three lakes all connected. The upper one is about eight miles long by two miles wide. It is three hundred feet deep. The second lake is about three miles long and a mile wide and sixty feet deep. The lower one is one mile and a quarter long and twenty-five feet deep. About one half of the largest lake is in the United States Glacier Park. From the lower lake flows the Waterton river through the park.

A survey was made in November last and one hundred and fifty lots, each 75 x 150 feet, were laid out in the most desirable places for villa residences. A large number have already been applied for.

There were about two thousand visitors last summer, five hundred of whom were non-residents.

This vicinity is noted for its large sheep and goat. Game has perceptibly increased in the last few years, and I might add that in order to insure its preservation and also the enforcement of the park regulations and assistance in case of fires, the engagement of an assistant to the forest ranger now employed is a matter for your consideration.

The employment of licensed park guides, who would be required to act as game and fire guardians, is recommended.

A portion of the park is in the Kootenay pass, a highway that has been used by the mountain Indians for many years. There is a rough wagon road into British Columbia and Montana. The pass is about sixty-five miles long, with an elevation of 7,100 feet at the watershed.

Some years ago an Indian found a petroleum seepage on Cameron Falls creek. In 1901, The Rocky Mountain Development Company sank several test holes. More or less oil was found at various depths. At 1,020 feet a good pumping well was struck. The Pincher Creek Oil Company are drilling there now. The Western Oil Company sank some holes next the Waterton lake on Cameron Falls creek and obtained some oil. They also put up some buildings on the upper end of the lower lake. Work here has been discontinued and the houses abandoned for some time. There is float copper on most of the mountains and two known ledges, one of which has been worked. Float coal is found on the lake shores. It is of the best quality.

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Last November there was a good horse trail cut out from Cameron Falls on the west side of the upper lake to the United States boundary line, so that visitors could ride to the wagon road in Glacier Park and proper patrols be made by the forest ranger.

FUTURE REQUIREMENTS.

In view of the probable greater influx of tourists I might suggest that a horse trail be made on the east side of the middle and upper lakes, as it is now impossible to patrol to the United States boundary by land in that direction; also a trail to Spirit lake, a beautiful spot hidden in the high mountains. Indeed, good roads are much needed here.

I would call your attention to the fact that there is no bridge on the Waterton river for forty miles, although there are three on the Belly river in the same distance. The high water lasts from six weeks to two months, during which time the Waterton is unfordable and men and teams have been drowned here from time to time. There can be no communication between shores except by row boat, and stock have to swim.

It seems to be advisable to greatly enlarge this park. Many people here desire it. I inclose a map of the proposed extension. It might be well to have a preserve and breeding ground in conjunction with the United States Glacier Park. I am sure this step would be much appreciated by all sportsmen and nature lovers.

During the last winter there were over 15,000 cattle and about 100 horses which drifted up here for shelter. This occurs to a greater or less extent every winter and even in the summer there is always a large number of range stock here. They eat all the grass and ruin the little hay and feed there is here. They are a menace to people, and women and children are in danger. It is impossible to keep them out except by a strong fence of, say, four double barbed wires. It would take about ten miles of fencing to close up the whole park. A fire guard could be ploughed on each side of the fence on the prairie.

I would also beg to remind you that the boundary lines are unsurveyed. There are no lines, pillars or any guide except on the south side of the International boundary line.

In conclusion, I may say that I know of very few places where an outing, fishing and boating, &c., can be had with more pleasure than in this park.

I am, sir,

Your obedient servant,

JOHN GEORGE BROWN.

Forest Ranger, in charge of Park.

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No. 8.

REPORT ON THE ST. LAWRENCE ISLAND PARKS.

DEPARTMENT OF THE INTERIOR, FORESTRY BRANCH,

OTTAWA, June 1, 1911.

R. H. CAMPBELL, Esq.,

Dominion Superintendent of Forestry,

Ottawa.

SIR,—I beg to submit herewith my annual report in connection with the islands in the St. Lawrence river, under the administration of the Forestry Branch.

The St. Lawrence Island parks consists of twelve islands lying between Brockville and Gananoque in the St. Lawrence river. With the exception of one, they were purchased from the Mississagua Indians of Alnwick by the government and placed under the Dominion Parks Division of the Forestry Branch for administration as public pleasure grounds.

In purchasing these islands and devoting them to their present use, the government was actuated by the consideration that the Thousand Islands were rapidly passing into private ownership and that it was desirable to reserve a number of them for the use of excursion, pic-nic and fishing parties and the public generally. That this policy has met with the approval of the public is evidenced by the large numbers of persons resorting to the islands.

A progressive policy has been adopted in administering these island parks. On most of them attractively designed pavilions have been erected and painted in appropriate colours; open-air stoves, tables, benches, garbage cans and out-closets have been liberally provided. In order to furnish safe and convenient landing, steamboat and skiff wharfs have been constructed in the most favourable locations, and by these means, many fair-sized boats bring Sunday school excursions from various points on the river and find convenient access to the islands.

Under your instructions, I have made three trips of inspection during the past three years and have devoted particular attention to the work of bringing the equipment of the islands up to the standard decided upon. That standard has not yet been reached, but progress is being made, and sufficient has been done to call forth much appreciative comment, and to make the islands already popular as places of public pleasure resort.

During the past year a pavilion was erected on Aubrey island, near Gananoque, and is already equipped for use. A skiff landing will be constructed this season and possibly a wharf in the near future, if the traffic demands it. A new pavilion was also built and equipment provided on the western end of Stovin island, near Brockville, where the number of visitors is particularly large.

The guardians of the parks on Stovin, Mallorytown and Grenadier islands, who are recent appointees, are: Messrs. Omar Truesdell, Martin E. Guild and Fred. Edgley.

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respectively; and Mr. J. B. MacKenzie, of Gananoque, who succeeds the late Mr. O. V. Goulette, has charge of the islands in the vicinity of Gananoque. These guardians have been visited and many details of labour in the way of maintenance of the present equipment and the clearing and improvement of the grounds arranged for. The photographs herewith but faintly suggest the restful beauties of many of these island parks and the charm of the neighbouring islands as viewed across the broad stretches of waters of the historic St. Lawrence.

Your obedient servant.

FRED. H. BYSHE.



Annual camp of Alpine Club of Canada, 1910, in Consolation Valley. Rocky Mountains Park.



"The Punch Bowl," at Jasper Collieries. Jasper Park.



Waterton Lakes Park—Oil Creek Falls.



Wild deer on Superintendent's lawn Banff, Rocky Mountains Park.

Photo by R. C. W. Lett.

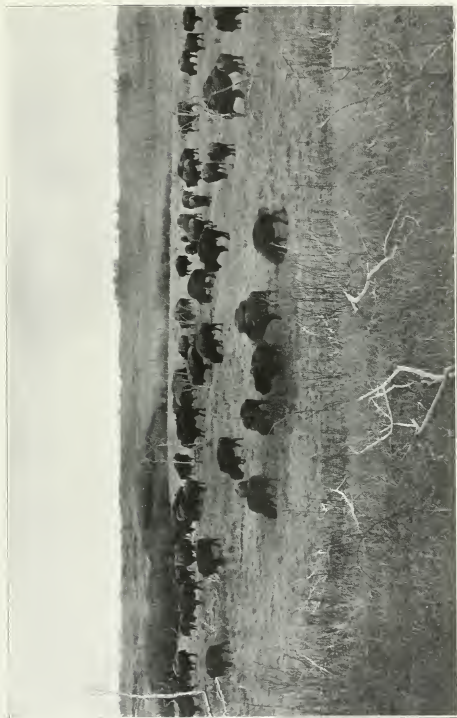


On the trail to Hot Springs, Jasper Park.

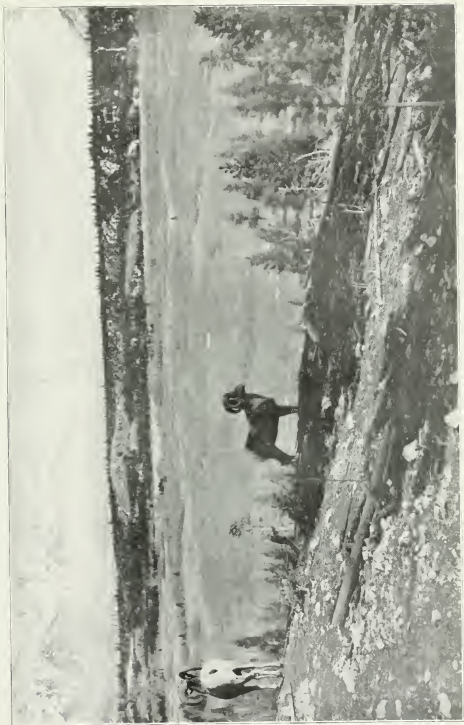


Fiddle Creek Canyon, Jasper Park.

Photo by J. H. Gano.



Buffalo grazing in Buffalo Park, Wainwright, Alta.



Mountain Sheep in Rocky Mountains Park, Banff, Alta.



Young Moose in Buffalo Park, Wainwright, Alta.

Photo J. H. Gano.



Hay-making in Buffalo Park, near Wainwright, Alta.

Photo R. C. W. Lett.



Lake Helen, at foot of Mt. Robson, British Columbia, Shoulder of Mt. Robson on right. Adjacent to Jasper Park.



Consolation Valley. Rocky Mountains Park.

Photo by F. H. B.



Pavilion on Gordon Island, near Gananoque, Ont. St. Lawrence Island Parks.

Photo F. H. B.



Wharf and Pavilion, Stovin Island, near Brockville, Ont. St. Lawrence Island Parks.



View from Beau Rivage Island, looking toward Gananoque, Ont. St. Lawrence Island Parks.

Photo by F. H. B.



Govt. pavilion on Beau Rivage Island near Gananoque, Ont. St. Lawrence Island Parks.

PART VI
YUKON TERRITORY

YUKON TERRITORY

REPORT OF THE COMMISSIONER.

No. 1.

COMMISSIONER'S OFFICE,
YUKON TERRITORY,
Dawson, Y.T., April 21, 1911.

The Honourable FRANK OLIVER,
Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit the report of the Yukon Territory for the fiscal year ending March 31, 1911.

GOLD PRODUCTION.

The gold production of the territory for the year ending March 31, 1911, shows an increase over last year's output.

According to the returns in the Comptroller's office the number of ounces recovered at Dawson was 272,638.12, which at the usual valuation of \$15 per ounce for royalty purposes amounts to \$4,089,571.50, being an increase over last year's production of \$494,687.45.

HYDRAULIC MINING AND DREDGING.

The Yukon Gold Company continued its hydraulic and dredging operations during last summer and is now making preparations to renew these operations at the opening of the season with renewed activity.

The Canadian Klondike Mining Company will operate two dredges during the coming season on the Boyle Concession on the Klondike river. One of these dredges was erected last summer and is said to be the largest and most powerful dredge in the world. Its work last year is reported to have been highly satisfactory, and demonstrated that dredging on the Klondike river can be successfully carried on until December at a temperature as low as 30 degrees below zero.

For the purpose of generating electric power to be furnished for dredging and other mining operations the Northern Light Coal and Power Company has erected a large and splendid plant at Coal creek, about 35 miles from Dawson, and is now furnishing power to the city of Dawson and vicinity. This Company has extensive coal areas from which power for the plant and coal for commercial purposes generally is obtained.

At the north fork of the Klondike river a large power plant is being installed. It is expected that the power generated will be available for use for mining purposes on all the gold bearing creeks in the Klondike district during the coming summer.

INDIVIDUAL MINING.

Individual mining continues to be prosecuted on Dominion, Sulphur, Quartz, Black Hills, Scroggie, Barker, Henderson and Thistle creeks, but no new discoveries have been reported.

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QUARTZ MINING.

I regret that I cannot report any increased activity in the development of quartz mines in the northern portion of the territory, although in several instances development work is being steadily pushed forward with encouraging results.

In the southern portion of the territory the outlook continues to be encouraging, and shipments of ore are now being made to the extent of one hundred tons per week from the 'Big Thing' mine, near Carcross.

YUKON COUNCIL.

The session of the Yukon council for the year 1910 commenced on May 19, 1910, and was concluded on June 9, 1910, all the members of the council being present during the session.

Seven ordinances were passed and assented to; all, with the exception of the supply ordinance, being amendments to existing ordinances.

Four ordinances were reserved for the assent of the Governor in Council, but it was not deemed advisable that such assent should be given.

It was considered advisable to summon the council during the year 1911 before the close of the fiscal year, March 31, and accordingly a proclamation was issued calling a session of the said council for March 20, 1911. Six members of the Council attended the session and ten ordinances were passed and assented to; all, with the exception of the supply ordinance, being amendments to existing legislation. The labours of the council were concluded on April 1, instant.

EDUCATION.

The schools throughout the territory continue to maintain a high standard of efficiency and the average attendance 'is good.

ADMINISTRATION OF JUSTICE.

I have again to report that the territory, during the past year, has been remarkably free from crimes of a serious nature and that the Royal Northwest Mounted Police, under the efficient command of Major Snyder, continues to perform its duties with promptness and satisfaction to the public.

I desire to express my appreciation of the excellent services rendered by the officials of the various departments of government in the territory.

I beg to transmit herewith reports from the Acting Comptroller, the Gold Commissioner, the Crown Timber and Land Agent and the Director of Surveys.

I have the honour to be, sir

Your obedient servant,

ALEXANDER HENDERSON,

Commissioner.

No. 2.

REPORT OF THE COMPTROLLER.

COMPTROLLER'S OFFICE,

DAWSON, Y.T., April 14, 1911.

The Honourable ALEXANDER HENDERSON,
Commissioner, Yukon Territory,
Dawson, Y.T.

SIR,—I have the honour to submit the annual report of the Comptroller's Office for the year ending March 31, 1911.

Under the appropriation through the Department of the Interior, 'Administration of the Yukon Territory,' the expenditure amounted to \$125,997.66, as shown by the monthly statements and vouchers forwarded to the department.

The expenditure on account of Department of Justice was \$14,573.70, monthly returns being made to that department.

The expenditure on account of the Department of Indian Affairs for the relief of sick and destitute Indians in the Yukon territory was \$5,950.68.

Under the letter of credit account, Department of Public Works, for the maintenance and repairs of public buildings, in the name of the Commissioner and the Comptroller, the expenditure was \$69,070.75.

The Royalty Export Tax collected in the territory for the year ending March 31 amounted to \$103,139.60—collected at Dawson \$102,239.18, at Whitehorse \$900.42.

The revenue from free certificates issued to exporters of gold from Alaska was \$152.50—collected at Dawson \$126, at Whitehorse \$26.50.

The revenue from these sources was deposited to the credit of the Receiver General, drafts being sent to the department weekly and statements at the end of each month.

From the sale of Yukon Territorial Court Law Stamps, the revenue received was \$2,706.25.

The returns of the revenue received in the offices of the Gold Commissioner and Crown Timber and Land Agent have been checked each month as formerly and returns forwarded to the department.

I have the honour to be, sir,

Your obedient servant.

WM. J. O'BRIEN,

Acting Comptroller.

No. 3.

REPORT OF THE DIRECTOR OF SURVEYS.

SURVEY OFFICE,
YUKON TERRITORY,

DAWSON, Y.T., March 30, 1911.

The Honourable ALEXANDER HENDERSON, K.C.,
Commissioner, Yukon territory.

SIR,—I have the honour to submit the following report of the work done in the Survey Department during the year ending March 31.

The staff consisted of James Gibbon, D.L.S., until June 1; Mr. J. E. Deslauriers, draughtsman, since June 22, Mr. J. W. Mackay, clerk, and myself.

Mr. H. G. Dickson was engaged during the summer by the department, to survey forty miles, or thereabouts, of reference traverse from Carmack's post, on the Yukon river, southwesterly.

It appears the department intends continuing this traverse as far as Jarvis creek in the Alsek district and from departmental letter of January 18, on file, it would appear the intention is to complete this traverse this coming season. Last season Mr. Dickson completed 46.78 miles and the returns for this portion have been filed and approved.

Of the quartz claims which were surveyed by this department in the vicinity of the 'King Dome' in the fall of 1903, there are still the returns of seven claims, the surveys of which have not yet been paid for. The names of these claims and their respective owners are:—

Name of Claim	Recorded Owner.
Sybel.. . . .	Sybel Grey.
Little Johnnie.. . . .	W. D. McKay.
King Edward.. . . .	W. D. McKay.
Jennie.. . . .	W. D. McKay.
Gold Coin.. . . .	C. Lauder & Mrs. Ellard.
Lusitania.. . . .	Mrs. Mary McManus.
Archie.. . . .	Jane S. Orrell & M. A. Hammell.

The returns for these surveys are in this office awaiting the payment of the cost of survey.

During the summer, I surveyed base line on Goring gulch and its tributaries. I also made surveys of a large number of placer claims on lower Dominion creek for the gold office, where the staking has overlapped; also some government auction claims near the mouth of Lombard creek on Upper Dominion.

Mr. Deslauriers has been employed in draughting and general office work, making tracings and blue prints, and giving general information to the public regarding plans, &c., here on file.

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Returns of the following surveys have been filed in this office during the year:—

Quartz claims and group lots.. . . .	78
Subdivisions.. . . .	1
Base lines.. . . .	3
Reference traverses.. . . .	1
Sections Dawson-Whitehorse road.. . . .	15

I have the honour to be, sir,

Your obedient servant,

C. W. MACPHERSON,
Director of Surveys, Y.T.

No. 4.

REPORT OF THE CROWN TIMBER AND LAND AGENT.

Dawson, Y.T., April 11, 1911.

The Commissioner of the Yukon Territory,
Dawson, Y.T.

SIR,—I have the honour to submit herewith my report of the business transacted in this office during the fiscal year ending the 31st ultimo, in the following statements in duplicate, namely:—

1. A statement of the revenues collected from royalty on lumber cut on timber berths, dues paid in connection with timber permits, seizures of wood and lumber cut in re-pass, and hay permits.

2. A statement of the revenues collected in the Dominion Lands Branch from improvements confiscated and sold, royalty on coal, sales of land, rentals on land, registration fees and homestead fees.

These statements show a decrease as compared with the previous fiscal year.

Only one sawmill was operated during the last fiscal year in the Dawson division of the Yukon territory, namely, the Klondike sawmill situated on the island in the Klondike river at its mouth, owned by the North American Transportation and Trading Company, but operated by the Yukon Sawmill Company under a lease.

Nine homestead entries were granted during the last fiscal year.

The wood and timber cutting operations along the Lewes, Yukon, Stewart and Klondike rivers and in the vicinity of Dawson show about the same activity as in the previous years.

The receipts from sales of land represent only a very small revenue owing to the fact that land suitable for agricultural purposes can be procured only by homesteading under the homestead regulations.

The various wood camps within a radius of ten miles from Dawson were frequently visited by the Crown timber inspector during the last fiscal year, and were found to be operated under proper authority.

The wood camps along the Lewes and Yukon rivers and also along the Stewart and Klondike rivers were also visited and found to be operated under proper authority.

Your obedient servant,

F. X. GOSSELIN,
Crown Timber and Land Agent.

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CROWN TIMBER BRANCH.

	Royalty.	Timber permits.	Seizures.	Hay Permits.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1910.					
April.....	63 25	905 00	54 00		1,022 25
May.....	590 96	176 65	15 50	72 00	855 11
June.....	481 28	823 88	151 89	46 00	1,505 05
July.....	112 03	1,891 22	30 41	46 00	2,079 66
August.....	129 50	562 87	100 00		783 37
September.....	586 49	1,306 85	51 90		1,945 24
October.....	306 90	486 25	381 53		1,174 77
November.....	589 23	1,331 33	54 00		1,974 56
December.....	270 75	153 00	70 00		493 75
1911.					
January.....	112 25	30 00	16 83		159 08
February.....	52 50	144 00	28 50		225 00
March.....	12 50	542 50			555 00
	3,298 73	8,355 55	954 56	164 00	12,772 84

DOMINION LANDS BRANCH.

	Improve-ments.	Coal Royalty.	General Sales.	Rentals.	Registra-tion Fees.	Home-stead Fees	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1910.							
April.....				1,989 00		10 00	1,999 00
May.....	271 85		43 82	2,313 03		10 00	2,688 70
June.....						10 00	10 00
July.....				36 49		20 00	56 49
August.....		25 00		181 63		10 00	196 63
September.....		86 50		312 37	6 00		404 87
October.....		302 66		4 00		20 00	326 66
November.....			50 29	10 00			60 29
December.....		13 50	502 45	100 00			615 95
1911.							
January.....				1,133 32			1,133 32
February.....			11 06	479 84	4 00		494 90
March.....				11 25		10 00	21 25
	271 85	427 66	607 62	6,570 93	10 00	90 00	7,978 06

No. 5.

REPORT OF THE GOLD COMMISSIONER.

OFFICE OF THE GOLD COMMISSIONER OF THE YUKON TERRITORY.

DAWSON, Y.T., April 11, 1911.

The Commissioner of the Yukon Territory,
Dawson, Y.T.

SIR,—I have the honour to submit herewith my report for the twelve months ending 31st ultimo, in the statements:—

1. A financial statement in duplicate giving the receipts of the gold commissioner's office during the fiscal year ending March 31 last, together with the receipts collected at the offices of the mining recorders for the Duncan and Sixtymile mining districts, which were accounted for by the said mining recorders to this office during the fiscal year in question.

2. A statement in duplicate showing a recapitulation of the receipts for the fiscal year in question.

3. A comparative statement in duplicate with the receipts of the previous fiscal year which ended on March 31, 1910.

The total receipts hereinabove mentioned show a decrease of \$13,413.94 as compared with the receipts of the previous fiscal year, which is accounted for principally as follows:—

- (a) By the difference of receipts on account of placer grants, \$3,730.
- (b) On account of renewal of placer mining grants, \$3,510.
- (c) On account of relocation placer mining grants, \$1,860.
- (d) On account of registered documents, placer, \$1,631.
- (e) On account of records of quartz mineral claims, \$1,770.

On the other hand it will be seen that there has been an increase of receipts from other sources.

The decrease in revenue in placer and relocation placer mining grants is due to the fact that less prospecting on new ground was done during the last fiscal year than during the previous fiscal years, the working population of the Dawson, Sixtymile and Duncan mining districts having, during that period, mainly devoted its time to operating and developing old ground situated on old creeks, or to working for wages for the companies and individuals operating in those localities.

Prospecting on new ground in those three districts has not been done away with by any means, as shown by the fact that thirty placer mining grants were issued from this office, and several grants were issued from the offices of the mining recorders for the Duncan and Sixtymile mining districts for new locations under the Yukon Placer Mining Act.

The decrease in receipts from renewal placer mining grants is due mainly to the fact that a number of placer mining claims have gone out of existence by the process of enlargement of boundaries of adjoining claims.

The decrease of revenues under the quartz mining regulations is accounted for by the fact that prospecting and development work was carried on in the locality previously recorded.

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In the Dawson mining district, the mining conditions did not change very materially within the last year. The Yukon Gold Company operated seven dredges on Bonanza and Hunker creeks, three hydraulic elevators on Bonanza creek, and several hydraulic plants on Bonanza creek and also on Hunker creek with the result recently published in the *Dawson Daily News*, showing a total output of \$2,847,098. The dredging season for six out of seven dredges in question was 159 days, and the running time of the other dredge was 108 days. The dredges in question handled, during the season of 1910, 3,249,788 cubic yards of dirt at an expense of 31.09 cents per cubic yard, including all thawing charges. As regards the hydraulic operations by gravity water and mechanical elevators, a total of 1,406,397 cubic yards were handled during last season, at an expense of 25.60 cents per cubic yard.

The Canadian Klondike Mining Company, Limited, operated one dredge on its leasehold known as the Boyle hydraulic mining location, on the Klondike river, during the whole of last season, and installed another dredge which is stated to be the largest in the world, and operated the same for a short period last fall. Approximately 400,000 cubic yards of dirt were handled by these dredges during the period extending from November 25, 1909, and November 5, 1910, at an expense of about fifteen cents per cubic yard, and it is expected that with the big dredge hereinabove mentioned and the reduced cost of power, the operating expenses will be reduced to about eight cents per cubic yard, and with the other dredge to about twelve cents a cubic yard. The output from these operations is not known in this office.

Mr. A. N. C. Treadgold constructed along the north fork of the Klondike river, and also along the main Klondike river, a ditch of six miles long with a capacity of about 20,000 miner's inches of water for the purpose of generating power, and installed a considerable distance of transmitting wire in connection with the power grants held by him in that locality. The plant in question will be completed during the course of the coming summer.

Considerable individual operations were carried on on Quartz creek and Lower Dominion creek, and on various portions of Dominion, Eldorado, Bonanza and Hunker creeks, and also Sulphur creek, and their tributaries, during last season.

Prospecting and development work was also carried on extensively on various creeks with satisfactory results, such as Thistle, Henderson, Black Hills, Barker, Scroggie, Goring and Log Cabin creeks, &c.

The Consolidated Dredging Company, Limited, operated one dredge on one of their dredging leaseholds situated on the Fortymile river, for part of last season, and about 160,000 cubic yards of gravel were removed, with results which, I understand, were fairly satisfactory.

Development in quartz mining in the Dawson mining district received a serious blow during last season by reason of the Dome Development Company, Limited, having failed to establish a mine contrary to their anticipation, where they were looking for it by driving a tunnel in the hill from the left limit of Dominion creek towards Lombard creek, to the extent of over 2,000 feet, but a large number of claim owners in that locality and in other localities in the Dawson mining district, did or caused to be done development work on their claims which may eventually prove successful, whilst other claim owners contented themselves with doing representation work on their claims. Faith in the existence of quartz bearing gold in paying quantities in the Dawson mining district is still very strong, and the day may not be far when some mine may be established.

In the Sixtymile mining district, mining operations were carried on, pretty extensively on Glacier and Miller creeks, which are the two oldest creeks in the Yukon. Mining operations have been carried on upon said creeks since 1894. Benches on the left limit of the Sixtymile river from the mouth of Miller creek to the mouth of Big Gold, a distance of approximately five miles, proved to be gold bearing in sufficient quantities to warrant operations which have been profitable in various places.

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In the Duncan mining district the conditions have not changed during the last two years, the mining operations being mainly carried on upon Hight creek and three or four other creeks, amongst which Haggart creek proved to be gold bearing in several places, so as to render operations profitable; but Duncan creek proper is practically all abandoned, the efforts made in previous years to sink to bedrock having failed owing to the inability of the operators to control the water.

The dredging operations of the Bonanza Basin Gold Dredging Company, Limited, on the Stewart river, and of the Stewart River Gold Dredging Company, Limited, on the McQuesten river, were carried on last summer by means of one dredge owned by one of these companies, but it has not been demonstrated as yet that dredging can be carried on successfully and profitably on those streams, owing to the difficulty of saving the gold, which is very fine.

You will notice that this report deals only with the Dawson division of the Yukon territory, which comprises the Dawson, Sixtymile and Duncan mining districts.

As regards the Whitehorse division of the Yukon territory, comprising the Whitehorse, Klwane and Conrad mining districts, I will leave it to the Assistant Gold Commissioner at Whitehorse to give you particulars in that respect in the annual report which he has been requested to make to you.

Your obedient servant,

F. X. GOSSELIN,

Gold Commissioner.

FINANCIAL Statement of the Gold Commissioner's Office, Dawson, Y.T., from April 1, 1910, to March 31, 1911.

RECEIPTS.

Placer—

To Grants.	\$ 1,530 00	
Reclamations.	3,570 00	
Renewals.	40,390 00	
Registered Documents.	3,484 00	
Abstracts.	22 50	
		\$ 48,996 50

Quartz—

To Records.	1,805 00	
Certificates of Work.	2,560 00	
Certificate of Partnership.	107 50	
Certificate of Improvements.	45 00	
Registered Documents.	967 00	
Lieu of Assessment.	100 00	
Acreage.	671 28	
Abstracts.	3 10	
		6,258 88

Sundry Accounts—

To Water Rights.	1,130 00	
Water Power.	800 00	
Hydraulics.	3,199 59	
<i>Drainage—</i>		
Dredging.	345 54	
		5,475 13

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Duncan—

To Placer Grants..	\$ 490 00	
Relocations..	330 00	
Renewals..	2,422 50	
Registered Documents—Placer.. . . .	419 00	
Quartz Records..	255 00	
Quartz Certificate of Work..	85 00	
Quartz Certificate of Partnership	10 00	
Quartz Registered Documents..	55 00	
	<hr/>	4,066 50

Sixtymile—

To Placer Grants..	470 00	
Relocations..	270 00	
Renewals..	1,382 50	
Registered Documents—Placer..	158 00	
Quartz Records..	95 00	
Quartz Certificate of Work	7 50	
Quartz Certificate of Partnership	2 50	
Quartz Registered Documents..	2 50	
	<hr/>	2,388 00
		<hr/>
		\$67,185 01

Disbursements—

By Receiver General..	47,909 00	
Comptroller..	17,578 01	
Gold Commissioner Interest Account.. . . .	658 00	
Gold Commissioner Suspense Account.. . .	1,040 00	
	<hr/>	\$ 67,185 01
		<hr/>
		\$ 67,185 01
		<hr/>

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COMPARATIVE STATEMENT.

RETURNS Gold Commissioner's Office, Dawson, Y.T.

	Year ending March 31, 1910.	Year ending March 31, 1911.	Increase 1911.	Decrease 1911.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Placer grants.....	6,226 00	2,490 00		3,736 00
Renewals.....	49,705 00	44,195 00		5,510 00
Relocations.....	6,030 00	4,170 00		1,860 00
Registered documents, placer.....	5,692 00	4,061 00		1,631 00
Abstracts.....	80 00	22 50		57 50
Water rights.....	595 00	1,130 00	535 00	
Water-power.....	500 00	800 00	300 00	
Hydraulics.....	2,844 50	3,199 59	355 09	
Dredging.....	306 05	315 54	39 49	
Drainage.....	5 00			5 00
Quartz records.....	3,925 00	2,155 00		1,770 00
" registered documents.....	1,262 50	1,024 50		238 00
" certificates of work.....	1,987 50	2,652 50	665 00	
" certificate of partnership.....	110 00	120 00	10 00	
" lieu of assessment.....	200 00	100 00		100 00
" certificate of improvements.....	52 50	45 00		7 50
Acceuge (quartz).....	1,070 40	671 28		399 12
Abstracts ".....	13 50	3 10		10 40
	80,598 95	67,185 01	1,904 58	15,318 52

Net decrease \$13,413 94.

No. 6.

REPORT OF THE ASSISTANT GOLD COMMISSIONER.

OFFICE OF THE ASSISTANT GOLD COMMISSIONER.

WHITEHORSE, Y.T., May 6, 1911.

The Hon. ALEXANDER HENDERSON, K.C.,
Commissioner,
Dawson, Y.T.

SIR,—I beg to submit the following report concerning the Whitehorse Mining and Dominion Lands District for the fiscal year ending March 31, 1911. There are two sub-offices in this district, namely, Conrad and Kluane. I have been unable to procure reports from either of these, and hence, beyond the reference to occasional features of outstanding importance gleaned from other sources, I can say little beyond giving a detail of the collections made from month to month. The Conrad officer does not for some reason report here direct, except in regard to his monthly returns. And, as already intimated, the Kluane report has not yet been received, and I do not know when I can look for it. The roads are well nigh impassable at this season, and this year they must be particularly bad, as the break-up has been slow and the weather unusually wet and inclement.

WHITEHORSE DISTRICT.

With one exception, the operations in regard to quartz claims here have been very much as in the past, mainly the performance of assessment work. The exception comprises the operations of The Atlas Mining Company on the 'Pueblo' copper properties. This company began operations in a somewhat vigorous way early last summer and quickly had an excellent plant in operation. This plant included a five-drill compressor and hoist, driven by an 80 horse-power boiler, excellent quarters for 65 men, commodious offices and a comfortable residence for the manager. The work of actual mining was proceeded with for about four months, a force of about 25 men being employed. A total of 4,738.13 tons of ore were mined and shipped during this interval, all of it being consigned to the Tacoma smelter. Most of this ore was taken from the large surface showing, and was quarried rather than mined. A working shaft was started on the west of this showing and sunk about 125 feet, the latter part in ore. The spur line of railway was completed to the mine early in the summer. The first shipment of ore was made on August 20 and the last on October 6. The company ceased operations about the time of the last shipment, and it now looks as if they had abandoned their option on the property. This is variously attributed to the fact that too great a price had been paid for the property (said to have been in the neighbourhood of \$500,000), to the low price of copper and to the inadequacy of the shipping facilities. It cannot be well charged against the quality of the ore. The manager, Mr. Greenough, early in September stated that one thousand tons treated previous to that time had gone 4.56 per cent copper and one-half ounce silver to the ton, whereas but 3.50 per cent ore had been expected. There is talk of operations being resumed by Mr. Byron N. White, the present principal owner, but nothing in that direction has yet been done. The property is certainly now in a fine condition for development.

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Placer mining in the district gives more promise than ever before. Besides the operations in the Big Salmon division, which have about held their own with those of the previous year, there has been some activity in two other directions. Nansen creek, a tributary of the Nisling river, and situated about fifty miles west of Carmacks on the Lewes river, is one of them. Thirty claims have been staked, and there is said to be a fair amount of low-grade gravel which may be worked profitably. Several men worked on the creek last winter taking out dumps, but as these have not yet been sluiced no idea of the result can be given. The second point of operation is Dezadeash lake, in the Dalton Trail country southwest of Champagne landing. Two creeks, Virgin and Kasha, have been located here, the former by prospectors from Haines Mission headed by Mr. Tim. Vogel and backed by American capital, and the latter by Whitehorse people, headed by H. C. Scott. In all 34 claims have been located on Virgin creek and 20 on Kasha creek. There are said to be very large deposits of gravel on both these creeks. Both have been pretty thoroughly prospected and it is expected will afford good hydraulic workings. Mr. Vogel took in a small hydraulic plant and a lot of supplies the past winter and hopes to make a good start the coming summer. He has a number of men now hard at work. Mr. Scott had also a number of men employed in cutting lumber and generally preparing for active operations. Both creeks are tributary to Lake Dezadeash and are situated on the eastern shore. They are about ten miles apart.

The collections for the year on account of Dominion Lands were \$4,052.37, against \$4,217.37 the previous year, while the figures from timber were respectively \$558.50 and \$690. There was also \$330 collected from coal lands and \$30 from homesteads. Gold royalty afforded \$926 against \$971.33 the previous year.

The total collections from all sources will be found on table No. 1, attached. They were \$11,193.35 against \$11,902.09 in 1909-10.

CONRAD DISTRICT.

The operations of the companies controlled by Mr. J. H. Conrad on Windy Arm and near Carcross form the outstanding feature of the mining operations in this district. These operations were mainly confined to the 'Big Thing' group of claims. A lot of excellent work has been done here and the company are pushing development vigorously. A new cross-cut tunnel, 2,700 feet long, is being driven from the western side of the hill, upon the eastern side of which the principal showings are situated. This tunnel is already in 550 feet and is progressing at the rate of 8 feet per day. The power employed is generated at a point down the hill, below timber line, about one mile distant from the tunnel mouth, and the compressed air to operate the drills is conveyed in pipes over that distance. It has been found to work well even during the most severe winter weather. During the past year 1,602 tons of ore, of an average value of \$33 per ton, have been shipped from this property, 1,481 tons to the Tye smelter and 121 tons to Tacoma. All this was mined by hand labour and was conveyed to the railway line at Carcross by wagon and sleigh over a most difficult road of about five miles in length. When the new tunnel is completed and strikes the ore, which it is expected to do at a depth of 900 feet, it is likely that an aerial tram to the shipping point will be installed. Most of the ore at present being shipped is from the 400 foot level, and it has been found to improve with depth. Should it prove as good at the 900 foot level the value of the property will be assured.

In addition to above the same company shipped 559 tons of an average value of \$62 per ton from the 'Venus,' and four tons of an average value of \$175 per ton from the 'M. & M.' claims. All this was shipped to the Tacoma smelter.

In the Wheaton valley a good deal of valuable development work is in progress. The owners of the 'Tally Ho' group have extended their main tunnel considerably

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and have run into a fine shoot of ore of late. The ledge is said to be fully four feet wide, is strong throughout and the quality of the ore much better than any heretofore obtained on the property. Average samples are said to run \$60 per ton.

On Carbon Hill, Mr. W. J. Fleming, of Chicago, Ill., recently started a gang of men, with an experienced foreman, on his claims there, and it is hoped they will prove the property a strong producer at depth, as it shows abundant promise of being on the surface. There has been a good deal of prospecting on Stevens mountain, where the surface showings are unusually large and rich. Unfortunately the roads are in a bad way in this section, the big floods of the fall of 1909 having carried away all the bridges. It will be a pity if these cannot be repaired at an early date, otherwise the work of the claim-owners in the vicinity must be seriously retarded.

The total collections of this district for the year will be found on table No. 2, herewith. They show a considerable falling off from the previous year.

KLUANE DISTRICT.

I have not had any general report from this district up to the time of writing, and therefore cannot enter into much detail. However, the placer ground on Burwash creek is being more extensively operated, and with a very fair measure of success. There is no longer any doubt of the existence of a genuine paystreak on this creek, nor of the fact that it can be profitably worked wherever there is frozen ground. Unfortunately only a limited portion of it is frozen to bedrock. Bullion creek is also looking better than ever. Dr. Sugden, who owns a group of claims in the lower twenties, is certain he has struck consistent pay, and hopes to demonstrate the fact conclusively this season.

Table No. 3, attached, gives the collections of the district from all sources for the ten months ending January 31, last. The returns for February and March have not yet come to hand. I shall forward a detail of these as soon as received.

Your obedient servant,

R. C. MILLER,

Asst. Gold Commissioner.

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TABLE I.—Statement showing collections made in the Office of the Assistant Gold Y.T., during the

MINING DUES.

MONTH.	PLACER.				QUARTZ.				
	Grants.	Reloca- tions.	Renew- als.	Registered Documents.	Grants.	Certified Work.	Payment in lieu.	Certificate of Partnership.	Registered Documents.
1910.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
April				3 00	40 00	32 50		2 50	12 50
May			40 00	5 00	35 00	42 50		2 50	60 00
June	60 00		110 00	2 00	25 00	95 00	100 00		70 00
July	20 00		190 00		45 00	77 50			180 00
August	60 00	10 00	110 00	5 00	20 00	10 00	100 00		40 00
September	50 00		70 00	23 00		25 00		5 00	55 00
October		40 00		14 00		22 50			87 50
November	30 00	60 00							
December									
1911.									
January	20 00		20 00		5 00	22 50			110 00
February	120 00		20 00			47 50		2 50	277 50
March	80 00		50 00	31 00	10 00	32 50			7 50
Total	440 00	110 00	780 00	108 00	195 00	500 00	400 00	12 50	960 00
Number of receipts	44	11	50	37	39	145	4	5	71

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Commissioner, and of the Crown Timber and Dominion Lands Agent, Whitehorse, fiscal year 1910-11.

	TIMBER AND LAND DEES.				GOLD EXPORT TAX.			TOTAL.	TOTAL.
	Dominion Lands Receipts.	Timber.	Coal.	Home-stead.	Royalty.	Free Gold.	Game Licenses.	1910-11.	1909-10.
Acreage and Cr'n Grants.									
¢ cts.	¢ cts.	¢ cts.	¢ cts.	¢ cts.	¢ cts.	¢ cts.	¢ cts.	¢ cts.	¢ cts.
113 19	194 12							392 31	2,622 00
	2,767 50	13 50						2,864 00	1,857 03
	115 00	5 00	320 00		182 27	50		1,010 27	509 89
34 02	193 37		5 00	30 00	163 07	1 00	200 00	945 96	1,110 50
	50 00		10 00		224 80	2 50	900 00	1,979 80	580 40
	243 37	25 00			109 20	10 50		748 07	1,100 91
132 82	356 02	55 00			178 99	12 00	100 00	1,114 83	545 09
73 45	10 00	350 00			8 44			654 89	1,551 40
113 10					28 65			355 75	351 39
		60 00						177 50	337 50
		50 00						527 50	715 01
33 48	122 99				5 00			422 47	560 97
500 06	4,052 37	558 50	330 00	30 00	900 00	26 50	1,200 00	11,193 35	11,902 09
20	21	15	4	3	37	37	12	555	570

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TABLE II.—Statement showing the Collections made in the Office of the Mining Recorder for the Conrad District during the fiscal year 1910-11.

Month.	QUARTZ MINING DUES.						PLACER MINING DUES.						Totals 1909-10.
	Grants.		Certificates of Work.		Certificates of Partnership, Assessment.		Registered Documents.		Acreage and Crown Grants.		Totals 1910-11.		
	%	cts.	%	cts.	%	cts.	%	cts.	%	cts.	%	cts.	
1910.													
April			7 50				17 50			7 50		51 50	
May		10 00		20 00		5 00				52 50		35 00	
June		15 00		32 50		5 00	100 00			155 00		200 00	
July		5 00		57 50			10 00			72 50		382 76	
August		35 00		175 00		7 50	100 00			330 00		287 50	
September		15 00		77 50		2 50				100 00		250 00	
October		20 00					17 50			37 50		32 50	
November		15 00		17 50			2 50			35 00		289 48	
December		5 00		2 50			2 50			10 00		2 50	
1911.													
January				2 50			5 00			5 00		22 50	
February										2 50		2 50	
March		5 00				2 50	7 50			15 00		65 00	
Totals	125 00	392 50		392 50	22 50	200 00	87 50			827 50	1,611 24		
No. receipts	25	157		9	25		2			218	317		

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TABLE III.—Statement showing the Collections made in the Office of the Mining Recorder for the Klwane District, during the ten months ending January 31, 1911.

MONTH.	PLACER MINING DUES.				QUARTZ MINING DUES.					Totals 1909-10.		
	Grants.	Relocations.		Renewals.	Registered Documents.	Grants.	Certificates of Work.	Certificates of Partnership.	Payment in lieu of Assessment.		Registered Documents.	
		\$	cts.									\$
1910.												
April.....			40 00	20 00	6 00						68 50	489 00
May.....			60 00	10 00	9 00						79 00	127 50
June.....				80 00							80 00	224 00
July.....			80 00	170 00	8 00						275 50	208 00
August.....	340 00	30 00	30 00	30 00	40 00	10 00					450 50	258 00
September.....			60 00	20 00	13 00						283 00	427 00
October.....			40 00	50 00							90 00	60 00
November.....				10 00			37 50				47 50	50 00
December.....			40 00	30 00			20 00				150 00	157 50
1911.												
January.....		130 00			4 00	10 00					144 00	150 00
February.....												36 00
March.....												20 00
Totals.....	340 00	480 00	670 00	80 00		20 00	57 50			20 00	1,638 00	2,297 00
No. receipts.....	34	48	67	33		4	16			2	204	275

PART VII

FORESTRY

FORESTRY

No. 1.

REPORT OF THE SUPERINTENDENT OF FORESTRY.

DEPARTMENT OF THE INTERIOR.

FORESTRY BRANCH,

OTTAWA, MAY 1, 1911.

W. W. CORY, Esq., C.M.G.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit the report of the work of the Forestry and Irrigation Branch for the year 1910-11, and also the reports of the officials in charge of the different divisions.

STAFF.

Mr. H. C. Wallin, a graduate of the Swedish School of Forestry at Stockholm; Mr. G. H. Edgecombe, a graduate of the School of Forestry of the University of Toronto; Mr. P. Z. Caverhill, a graduate of the Forest School of the University of New Brunswick; and Mr. G. A. Cromie, a graduate of the Yale Forest School, were appointed on the staff of foresters at the beginning of the year. Unfortunately, owing to private reasons, Mr. Cromie has recently found it necessary to resign.

The administration of Dominion parks has been reorganized and the office of the Commissioner, Mr. Howard Douglas, has been removed to Edmonton. This location will be convenient for reaching all the parks and will be specially so in connection with Jasper park, which is in the initial stages of organization, and Buffalo park, where the large herd of buffalo owned by the Dominion government are kept. Mr. A. B. Macdonald was appointed to the position of superintendent of the Rocky Mountains park vacated by the transfer of Mr. Geo. Hunter to Yoho park.

Mr. John Stewart, commissioner of irrigation, submitted his resignation to take effect at the end of the fiscal year and Mr. F. H. Peters, C.E., has been appointed in his place. Mr. Peters is an honour graduate in engineering of the Royal Military College and has had considerable experience in engineering and water supply investigations. For the last two years he has had charge of water supply investigations on the St. Mary and Milk rivers which are the subject of treaty with the United States. Mr. P. M. Sauder is continued as chief of hydrographic surveys and will act as commissioner when Mr. Peters is absent from Calgary. Mr. R. J. Burley, who has had charge of inspections under the Irrigation Act in the Maple creek district is made divisional engineer for the Cypress-hills district and given charge of the inspections and water supply investigations in that watershed.

PUBLICATIONS.

During the year the following additional bulletins were issued and have been widely distributed:—

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- Bulletin No. 1 (4th edition) Tree planting on the prairies.
 " " 9 Forest fires in Canada, 1909.
 " " 10 The farmer's plantation.
 " " 11 Forest products of Canada, 1909; square timber, lath and shingles.
 " " 12 Forest products of Canada, 1909; pulpwood.
 " " 13 Forest products of Canada, 1909; cross-ties purchased.
 " " 14 Forest products of Canada, 1909; poles.
 " " 15 Forest products of Canada, 1909; general.
 " " 16 Forest fires and railways.

Successful tree planters. Letters of farmers in the provinces of Manitoba, Saskatchewan and Alberta regarding the planting of shelter belts, &c.
 Irrigation Bulletin No. 1. Irrigation in Saskatchewan and Alberta.

The demand for literature on forestry and irrigation is rapidly increasing. The publications issued have been designed to meet this demand as indicated by inquiries addressed to the department and have been made popular in style.

Thirty thousand fire notices giving warning of the danger of fire, in English, French, German, Icelandic, Galician, Indian (Cree and Chipewyan), Norwegian, Russian, Hungarian, Hindu, Japanese and Chinese, were distributed and posted throughout the fire rangers' districts.

Two hundred thousand copies of a small pamphlet explaining the danger of fire, the chief provisions of the Fire Acts and the best methods of fighting fire, were distributed in English, French, Ruthenian, German, Norwegian, Hungarian, Swedish and Russian. This pamphlet is now being printed in several other languages.

There were also distributed 15,000 copies of bulletins on the planting and care of trees; 30,000 copies of a general bulletin showing the damage done by fires throughout Canada, and 20,000 copies of miscellaneous bulletins and reports, including the statistical reports of forest products.

STATISTICS.

The gathering of statistics of the wood products of Canada, begun in 1909, was continued during last year, and the statistics for the year 1909 have been published. The reports received for 1909 were more numerous than those for 1908 and the figures resulting are therefore a much nearer approximation to the actual product. The collection of statistics covering the year 1910 is at present under way, and as the reports are coming in more readily and quickly it is hoped to be able to publish the compiled statistics early in 1911. A summary of the results of this work is contained in the report of H. R. MacMillan, attached hereto.

TREE PLANTING ON FARMS.

The interest in the distribution of trees for planting on farms in the prairie country continues to increase. In 1910, 8,318 applications for trees were received, and 2,533,600 trees were distributed to 3,173 settlers. Owing to the increasing number of applications it has been necessary to cut down the number of trees supplied to each settler, and as the capacity of the present nursery station has almost been reached, it will be necessary to take steps immediately to increase the nursery accommodation.

A stock of coniferous trees having now been grown, it has been arranged that distribution should be made of them. As, however, it is impossible to provide a sufficiently large stock of conifers to supply all possible demands, and as the expense of growing them is considerable, it has been decided to make a charge of \$1 per hundred. Coniferous trees will not grow as easily as the deciduous species, and the

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making of a charge for them will probably act as an incentive to greater care. A row of coniferous trees added to a shelter belt of deciduous trees will greatly increase its value as a windbreak, especially in winter.

TIMBER SURVEYS.

Owing to the expected early construction of the Hudson Bay railway it was considered necessary that an examination of the timber along the proposed route of the railway should be made. A party under the charge of Mr. J. R. Dickson was sent to make the inspection, starting from The Pas. This party covered the district from The Pas to Split lake, a distance of about 235 miles, and examined the timber for a distance averaging ten miles on either side of the proposed line. The route followed was by way of Metishto and Grass rivers on the northwest side of the proposed line of railway and return was made by Nelson and Pine rivers on the south-east side. The method was to run back lines for four to six miles on either side of the route of travel at intervals of three to six miles. As the stand of timber was generally uniform a large area could be covered in this way and sufficiently accurate information obtained in regard to the quantity available. The whole district is covered with a stand of timber, mainly spruce, but owing to fires and to slow growth in the undrained muskegs the quantity over eight inches in diameter at the stump was found to form but a small proportion of the stand. The approximate quantity available for railway construction purposes in the district examined is 361,300 railway ties and 9,424,000 feet B.M. of timber of sufficient size for lumber purposes.

The great area of timber in the district is a valuable asset and, if preserved from fire, there is no reason why it should not all reach maturity. The great conflagrations are evidently periodic and occur at long intervals, probably when a succession of two or three dry seasons follow one another. With such an extent of country practically uninhabited the only thing that can be done is to have a patrol of fire rangers following the route of travel regularly.

There is but little tamarack and jackpine timber in the district, what mature tamarack there is having been killed, apparently by insects. It will therefore be necessary in the construction of the railway to use spruce to a considerable extent both for timbers and ties. As spruce timber in contact with the earth is short-lived it seems that the necessities of the case would present an opportunity for trying some experiments in the preservative treatment of wood, and it is hoped that an arrangement can be made with the Department of Railways with the object of having such experiment tried.

Later in the season Mr. Dickson made an inspection of the Bear Hills and Eagle Hills in the province of Saskatchewan south from Battleford. These tracts were found very suitable for the purposes of a timber reservation, but owing to the fact that a large proportion of the lands had already been disposed of it was finally decided that no reservation should be established.

Two survey parties were at work on the eastern slope of the Rocky Mountains with the object of determining the eastern boundary of the Forest Reserve proposed to be established. The parties started with the Elbow river as a base. I accompanied the parties to this point and made an inspection of the valley of the river with the heads of the parties so as to reach a determination on the ground of the general conditions on which the boundary line was to be fixed. The conclusion was reached that the line should be fixed at an elevation of about 4,000 feet above sea level, which would exclude all agricultural and nearly all grazing lands. Except for a few narrow valleys the lands above this point are broken, with steep slopes and frequent rocky outcrops until they finally merge into the grey rock of the mountain peaks above timber line, which reaches to a height of between 6,000 and 7,000 feet above sea level.

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One party, under charge of Mr. G. H. Edgcombe, worked south and examined the territory from the Elbow river to the international boundary, a distance of about 130 miles. From the Elbow river for some distance south the foothills slope gradually to the prairie, but approaching the international boundary the mountains break abruptly into the plain. The timber is largely western jackpine, though there are stands of spruce and Douglas fir. The greater part of the district has been fire swept at some period in its history. The stand of mature timber is comparatively small but the reproduction, especially jackpine, is good.

The other party, under charge of Mr. P. Z. Caverhill, worked north and reached the North Saskatchewan river, a distance of about one hundred miles. This district is more difficult of access than the southern one, and owing to the greater extension of the foothills eastward required the examination of a wider territory. The timber is largely of the same type as that farther south, and has suffered from fire in the same way. The mature virgin stand does not exceed twenty-five per cent in the area examined.

It is proposed during the present year to continue the examination of the boundary of this reserve to its northern limit.

An examination of lands in timber berths in British Columbia which were patented or were shown by a survey made by H. G. Wheeler to be lands fitted for agricultural purposes was made in the coast district by Mr. H. C. Wallin and in the mountain district by Mr. G. A. Cromie. The instructions were to report on the timber on such lands and to determine what steps should be taken to make the lands available for the owners or for agricultural settlement. A large number of pieces of land were reported on, but final action on the reports has been suspended for the present.

Mr. J. T. Blackford, an experienced woodsman acquainted with conditions in the north, was appointed to explore, estimate and map the timber, and act as fire ranger in the district surrounding Oxford House.

Accompanying this report is a sketch map made by Mr. Blackford showing the districts which he traversed, and the location of the timbered and burned over areas. Mr. Blackford travelled south from Oxford House to Minnihik, Clearwater and Rat lakes, and north and east from Oxford House to Fox and Deer lakes, covering in all about 5,433 square miles of country.

About 1,612 square miles of this territory still bears merchantable timber; on about 3,821 square miles all the merchantable timber has been destroyed by fire.

There are abundant evidences that this whole country was originally heavily forested with spruce, tamarack, jackpine, balsam, birch and poplar. On the islands, which have been naturally protected from fire, are dense stands of trees two to three feet in diameter, and around some of the lakes are blackened stumps two to three feet in diameter.

A reliable Indian, between sixty-five and seventy years old, said that 'long ago there used to be lots of fine large timber. Every summer there have been fires more or less. Long ago (about 25 years) there was one terrible fire which ran for many days. We could not see the sun and the only way I could get my breath was by putting a piece of flannel over my mouth. This fire started at Robinson Portage and ran from that east to Oxford lake and west as far as Deer lake. Up to this time there were lots of fur and deer by thousands, but since then we have not had much fur, nor have I known one deer to be seen within three or four days journey from here. Before the fire we saw only an occasional moose, but now there are lots. * * * * Two summers ago we had large fires all around us. The Indians say that many of the fires started inland where there are no people, and that many of them are caused by York boat men. The big fire of twenty-five years ago was started by Indians working on a York boat.'

Hunters on their way to the winter hunting grounds are careless with their camp fires and are responsible for many forest fires. Mr. Blackford found that in this

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district freighters and trappers are very careful. The Indians, carelessly leaving camp fires, start forest fires in the Oxford House district every season.

After fire has destroyed the original forest there is nearly always a dense second growth in which jackpine, poplar and birch occur in a greater proportion than in the original forest. This second growth would in fifty or sixty years produce a valuable forest if it were protected from fire. Unfortunately after the first fire there is always a residue of dry resinous wood, which together with the inflammable nature of the young growth itself renders a second fire almost inevitable.

Travelling between Fox lake and Norway House, Mr. Blackford found that day after day he had to cut his way through fire killed timber. Fires are driven with such fury in this country that even the rivers are insufficient to stop them. A fire which occurred three or four years ago burned both sides of the quite wide Fox river. Repeated fires destroy all seed trees, all seed and much or all of the rich upper layers of soil and render it impossible for another valuable forest to start naturally except after a long period of time. Mr. Blackford observed that this had been the case over large areas in the Oxford House district, that the whole country had been fire swept many times, chiefly within recent years, that the soil had been impoverished, that where there had been valuable stands of spruce and tamarack there was now nothing but willow, poplar, birch and scattered small spruce. Where fires had been exceptionally fierce or frequent the country was burned to prairie. Tamarack seems not to be coming in after fires, but where fires have not been frequent there is good natural reproduction of spruce and jackpine, the jackpine usually occurring on the ridges.

On several extensive trips Mr. Blackford never saw the limit of the burned area. Fires have evidently been much more frequent in the country tributary to the routes followed by the York boats than elsewhere.

The muskegs carry fire and have nearly all been burned over.

During the summer Mr. Blackford found no commercial timber of any quantity, but he states that except for fire, the whole country would be covered with timber two or three feet in diameter.

Around Knee lake, along Loaf river, around Nest lake, Mossy lake and God's lake, there is timber five to six inches in diameter, spruce, tamarack, poplar and balsam. On the islands in these lakes timber is two to three feet in diameter.

Around Oxford lake the timber is all of very recent growth.

On the shore of Minnihik lake where it has been naturally protected from fire is about 200 acres of the best timber in the country.

One small grove of timber near Rat lake contained spruce trees thirty-eight inches in diameter and eighty feet high. There were here 320 trees per acre over seven inches in diameter, and 844 trees over four inches in diameter. On a jackpine ridge there were 775 trees per acre over five inches in diameter. These small patches are typical of what the whole country would be if it had not been burned.

On the shore of Minnihik lake there is a strip of timber five miles long and three-quarters of a mile wide, containing trees from eight to twenty inches in diameter, and about seventy-five feet high.

For twenty miles northeast from Oxford House there is a strip of timber, mostly spruce with some jackpine and very little tamarack and balsam, averaging from eight to ten inches in diameter. Along the Deer river there has been good timber but it is all burned. Around Deer lake there is a belt of scrubby spruce twenty-five miles wide.

It has been represented by travellers following Fox river that the river flowed through timber. Mr. Blackford found only a very narrow fringe of trees along the shores; behind these the country has all been burned. The Indians near Fox river say that as far as they have travelled in any direction the country is all burned. Between Oxford House and Norway House the timber is larger than any near or north of Oxford House. Unfortunately the best of it has been burned. There is much poplar along the waterways.

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Mr. Blackford attended the council meetings of the Indians at God's lake and Oxford House. He explained that the government was sending out men to protect the forest from fire, and that it was to the interest of the Indians to prevent and extinguish all fires. The chief and councillors spoke in favour of the work and the Indians seemed during the summer afterward to have been very much impressed and to be acting more carefully than usual. The Hudson's Bay man in charge of the post at God's lake said early in 1911 that he did not know of a single fire started by the God's lake Indians in 1910. This was a most unusual record and he attributed it to the presence and influence of the Dominion fire ranger.

Mr. Blackford gave the boys at the Indian school at Oxford House a talk on fires and how they were to be prevented. He spoke also to headmen of the York boats, and had them promise to be more careful in the future.

The Indians throughout the district deplore the burning of the forest and feel very doubtful about their future should fires continue to destroy the forest and the game.

Mr. Blackford suggests that the Indians may be encouraged to be careful with camp fires if they are given a little badge to wear as Indian volunteer fire rangers. Badges have been supplied to the Indians in the Oxford House district.

Timber and game will, for a long time at least, be the chief products of the Oxford House district. There is but little of the territory fitted for agriculture, there are so many ridges, muskegs, streams and lakes. It is, therefore, very important that the timber should be protected from fire.

Mr. J. T. G. Whyte, an experienced timber cruiser and fire ranger, was appointed in May, 1910, to make an inspection of the timber along the route of the Hudson Bay railway and to act as forest fire ranger.

Mr. Whyte was stationed near the Hudson's Bay Company post on Split lake, and explored the country south and east of Split lake. He travelled down the Nelson river to Gull lake and Buttneau lake, a distance of seventy miles, up the Nelson river to Manitou rapids, east from Split lake to and beyond the survey of the Hudson Bay railway, and west from Split lake to Assen lake, traversing a district of approximately 2,400 square miles. A sketch map of the country covered by Mr. Whyte accompanies this report.

This whole territory was originally covered with forest. Where the timber has been protected from fire, as on the islands in Split lake, the trees—spruce, tamarack and jackpine, are large enough to make good railway ties, poles and lumber. But except on the islands, the whole country has been overrun by fire, in a few districts once, in the majority of cases many times during the past forty or fifty years, and any timber now standing dates from the last fire and is therefore small.

Along the rivers and lakes fires have been very numerous. Mr. Whyte estimates that the shores of Split lake have been burned over on an average of once every season.

Mr. Whyte observed that the crews of the York boats travelling the waterways of this country do not completely extinguish their camp fires, and that the majority of the forest fires start from these camp fires. He saw one fire which was started by lightning. No fires escaped control in the Split lake district after Mr. Whyte arrived. There were reports of large fires near York factory and west of Nelson House.

Fires in this country are disastrous when they escape control. The timber is all resinous, the living trees are loaded with dry dead branches and moss, the green branches of the young conifers are very inflammable, there are large areas of old burns where the ground is thickly piled with fallen dead trees as dry as tinder, and excepting the streams and lakes, few of which are large enough to stop a raging fire, there are no natural barriers to prevent a widespread conflagration. In the dry seasons the upper layers of moss in the muskegs carry fire rapidly and keep it alive for weeks or months, as long as there is anything to burn.

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Mr. Whyte mentions that the fire-killed timber in the Split lake region is not so badly affected by worms as it would be in the Ottawa valley.

Fortunately in this district the soil is deep, but a comparatively small proportion of the country consists of rock outcroppings, and there is always sufficient soil to support another crop of trees. The trees native to Split lake country, the spruce, jackpine, tamarack, balsam, poplar and birch, are very tenacious of their hold on the ground, and the jackpine, poplar and birch are particularly well adapted to reforest burned over land. Practically all the timber in the Split Lake region consists of trees which have come up after fires. Widespread fires have been so recent that but a small proportion of the forest cover reaches a diameter of four inches. The greater part of this territory is covered with young trees, the largest of which reach a diameter of three to four inches. The presence of merchantable forest in situations protected from fire, proves that the young forest now started will become sufficiently valuable to support sawmill and pulp industries and supply a large population if it can be protected from fire.

Mr. Whyte estimates that there is no timber between the Hudson's Bay post on Split lake and Manitou rapids large enough for railroad ties. All the timber around Manitou rapids has been burned. The territory crossed by the Ripple and Landing rivers has all been cleared by fire. About one-half of it is now covered with trees two and three inches in diameter. The country around Gull lake is mostly green, but the timber is all below three inches in diameter, excepting a narrow fringe of four inch spruce large enough for pulpwood which surrounds a few of the lakes. There is not enough of the pulpwood around the inland lakes between and near Split and Gull lakes to be of merchantable value. Around these lakes is not enough timber to make 500 railway ties. There is said to be on Kettle river enough timber for railroad construction purposes.

Between Split nad Assean lakes the country is green. The timber here is between four and eight inches in diameter, and is large enough for pulpwood, but there are only scattered spruce and tamarack trees large enough for ties and piles.

Along the valley of the Hudson Bay railway survey between Manitou rapids and Buttneau lake, a distance of seventy miles, is a level muskeg covered with small trees. The largest trees will make a Number 1 tie, but they are scarce.

There is a belt of green timber about fifteen miles wide west of the Nelson river between Manitou rapids and Split lake. The trees are spruce, jackpine and tamarack; about four per cent of the spruce, and one per cent of the tamarack and jackpine are large enough for railway ties. There are here about four cords of pulpwood per acre, and on the whole tract there are over two million cords of pulpwood. About five per cent of the timber is large enough to make poles sixteen to twenty feet long, twelve inches in diameter at the butt, six to eight inches in diameter at the top, and about fifteen per cent is large enough to make poles ten inches in diameter at the butt.

Mr. Whyte reports that very little of the land he traversed was suitable for agriculture. The soil is a heavy clay, much of it covered with muskeg. The region is comparatively level.

There are fish in all the inland lakes. Fur-bearing animals and game, moose, deer, bear, beaver and otter are fairly plentiful.

Mr. Whyte recommends that an arrangement be made with the Hudson's Bay Company to have a man accompany all York boats travelling through the territory, equipped with fire-fighting tools, and authorized to see that York boat crews extinguish all the fires which they start. He also recommends that two Indians be employed during the dangerous months of June, July and August, one to patrol the country between Manitou rapids and the centre of Split lake, the other to patrol from the centre of Split lake to Gull lake, together with Assean lake.

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FOREST RESERVES.

A new Bill relating to Forest Reserves has been prepared and presented to parliament. It provides for the withdrawal of the Lake Manitoba west forest reserve in the province of Manitoba, and the Donald forest reserve in the province of British Columbia. The additions proposed by the Bill are as follows:—

PROVINCE OF MANITOBA.

	Acres.
Duck Mountain forest reserve.. . . .	97,920
Spruce Woods forest reserve.. . . .	73,280
Total.. . . .	171,200

SASKATCHEWAN.

Duck Mountain forest reserve.. . . .	51,840
Beaver Hills forest reserve.. . . .	17,280
Nisbet forest reserve.. . . .	5,760
Cypress Hills forest reserve.. . . .	47,360
Total.. . . .	122,240

ALBERTA.

Cypress Hills forest reserve.. . . .	40,320
Rocky Mountain forest reserve.. . . .	11,656,320
Buffalo forest reserve.. . . .	101,760
Total.. . . .	11,798,400

BRITISH COLUMBIA.

Yoho forest reserve.. . . .	1,103,040
Glacier forest reserve.. . . .	367,360
Total.. . . .	1,470,400

The total area added to the reserves is 13,562,640 acres and the withdrawals are 159,040 acres, leaving a net addition of 13,403,600 acres, and making a total area reserved of 16,128,960 acres.

The Forest Reserves Bill was so framed as to include all lands reserved for parks as well as for forest reserves proper, and authority is given to the Governor in Council to set apart as parks such lands within reserves as are suitable for that purpose. Consequently the parks previously set apart have been included in the Bill. These are Yoho and Glacier parks in British Columbia; Rocky Mountains park and Jasper park in Alberta, which are now included in the Rocky Mountain forest reserve, and Buffalo park, also in the province of Alberta.

The increase in the number and area of the forest reserves and other developments referred to hereafter make it necessary to consider the organization and administration of the forestry work of the Dominion government. The question is not so much at the present time one of legislation or of theoretical speculation or general inquiry but of providing an adequate and efficient organization established on right lines so as to properly study the conditions of each locality and apply the principles of management suited to those conditions.

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Protection from fire and enforcement of laws and regulations are the first things to be provided for, and this means a sufficient and efficient staff of forest rangers. The experiences with forest fires last year, both in the United States and in Canada, emphasize strongly the necessity for such a staff and there is no question whatever that the success of a forest administration rests to a very large degree on the intelligence, the faithfulness and the practicability of the forest ranging staff. The work of a forest ranger is arduous and requires a man of energy and strong physique. The qualifications for appointment as a forest ranger should be as follows:—

1. He should be between the ages of twenty-five and forty.
2. He should be sober, industrious and physically fit.
3. He should be able to read and write and have sufficient knowledge of arithmetic to transact the ordinary business of the reserve, such as calculating the dues on permits.
4. He should be able to handle horses and to ride.
5. He should be experienced in work in the woods, should be accustomed to handling an axe and should be able to estimate and scale timber.
6. He should be able to handle a gang of fire fighters or men working on roads or trails.

To ensure these qualifications some test or standard of examination will be necessary, and in the forest service of the United States it was not until a regular plan of examination, in which, however, large credit is given to previous experience, was adopted for the appointment of rangers that that service was placed on an efficient basis.

The district which one ranger can protect will depend on conditions on the ground. The United States forest service consider that there should be an average of one ranger for each one hundred square miles. To equip the Dominion forest reserves with rangers as fully as this standard would demand would mean a staff of 250 rangers. Of permanent rangers now on the Dominion reserves, there are 19, and though this number was increased by temporary appointments during seasons of danger or necessity it still is only a fraction of the force required.

Mechanical means of assistance will be required to make the rangers' work effective, such as lookout stations to give views over large extents of forest, roads and trails to give quick and easy access in case of fire, means of communication such as telephone lines, and in some cases the clearing of special fire guards.

The experience both in Canada and the United States during the dry season of 1910 demonstrated the absolute necessity both of a sufficient number of rangers and of all the mechanical aids that can be provided.

During the past year one or two small areas of timber were granted to owners of small mills and, before cutting, the timber to be cut was marked by a forester and an agreement was signed by the owner of the mills to carry out the operations in accordance with the orders of the forester and to clean up the debris after operations. The clearing after such operations has a decidedly beneficial effect in case of fire, but the effect of such clearing needs further careful study. Natural reproduction will be the chief means followed to provide for the renewal of the forest, and it must be definitely determined what the effect of various methods of lumbering on natural reproduction is if this purpose is not to be defeated.

At this point the scientific forester is needed and the forester must not only be provided but he must have time to study conditions. It is not to be inferred that a forester is turned out with any rule of thumb knowledge by which he can solve every question that arises. When such products of the schools are found they are usually found to be useless. The pressure of purely administrative work and the necessity for widely extended timber surveys have not given the opportunity for such investigation as is necessary for intelligent work, but with the additions being made to the technical staff it is hoped to overcome this difficulty within a short time.

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DOMINION PARKS.

The various park offices were inspected last autumn and an accounting and correspondence system established which would meet the requirements of the department.

As the portion of the Calgary-Banff coach road which lies within the Rocky Mountains park was fairly well completed last fall, it was considered advisable to yield to the many requests received from those interested in automobiles for permission to enter the park as far as Banff with their motors. The necessary authority was therefore obtained and regulations established which provide for:

1. The usual precautions for public safety.
2. The use of one direct route to the various hotels in Banff.
3. Running in daylight only.
4. Registration at Banff on arrival, and the issue of a certificate of registration upon payment of a fee of 25 cents.

The protection of game and the prevention of fire have received a good deal of attention and the results have been satisfactory. Game has become more plentiful, and, particularly at Banff, is frequently seen in the neighbourhood, and sometimes even in the streets of the village. A photograph has been secured of a couple of wild mule deer on the lawn of the superintendent's cottage and the superintendent reports that some of the deer have become veritable pets.

The mountain sheep in captivity and the increasing numbers in the vicinity of Banff have already begun to attract artists and other students of natural history, who can now with very little effort study many species at comparatively close range. But while, under the protective system now in force, game has increased, noxious animals have also thrived; and it has been found necessary to take active measures to reduce their numbers. These measures are meeting with good success.

The park game guardians act also as fire wardens and their efforts are reinforced by special help during the dry season. Particular care was exercised last year along the line of railway construction in Jasper park, and a special velocipede patrol was placed on the railway between Canmore, Banff and Laggan. A strict watch was also maintained upon campers to see that no fires were left burning. By these various means quite a number of fires were extinguished which would otherwise have been disastrous in their results.

About 170 miles of fire guard, 20 feet wide, have been broken in Buffalo park, which, though necessitating a good deal of labour each year to keep in effective condition, is worth the labour and expense for the security it affords to Canada's large buffalo herd.

A number of moose, elk, antelope and other animals have been placed in the various parks in a state of partial captivity with a view to developing a reasonable sized herd of each species. During the year, 112 buffalo were received from Montana, 30 being purchased from the herd of Mrs. Conrad, of Kalispel, and 82 from Mr. Michel Pablo, of Ronan, who has supplied up to date 710 head. This will probably complete, or nearly so, the shipment of buffalo from Montana. Reports show that all the buffalo have wintered well and that a substantial increase may be expected this year. Outside of this spring's natural increase there are now in the several parks 904 head of buffalo, 832 of which are in Buffalo park, 48 in Elk park and 24 at Banff.

Until within the past year little or no revenue was being derived from the townsites of Canmore in the Rocky Mountains park, and Field in the Yoho park; but some months ago these townsites were thoroughly canvassed and many of the inhabitants were required to apply for leases of their dwelling lots. As a result 51 persons in Canmore and 41 in Field have already applied for leases and are contributing revenue to the department in the form of rental.

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Considerable work has been done in the way of repairing the various roads and trails of the park and in opening up new ones. This feature of the work is regarded as highly important, since the tourist is largely dependent upon the roads and trails for his enjoyment of otherwise inaccessible mountain scenery. Further, the more pleasure the park visitor derives in this way the more extended is his stay and the more money does he spend in the park; also the more the marvellous beauties of the parks are made available to the tourist the more widely and enthusiastically are they advertised. One of the principal features of the work planned for the ensuing year is the construction of new roads and trails which will add materially to the number of points of interests.

ST. LAWRENCE ISLAND PARKS.

These islands, twelve in number, in the St. Lawrence river, between Brockville and Gananoque, are growing in popularity. Every day during the summer season and particularly on holidays, they are occupied by large numbers of people who take advantage of the pavilions, tables, stoves and other conveniences provided by the government and spend some time in rest, and in quiet enjoyment of the pleasant surroundings. To the cities of Brockville and Gananoque these islands constitute breathing places and objective points for short water trips, the value of which can hardly be overestimated. As nearly all of the most desirable of the Thousand Islands are now in the hands of private individuals, and the public are in consequence debarred therefrom, the wisdom of reserving a number for public recreative purposes has already been demonstrated. Realizing their importance, special attention has been given these island parks by the Forestry Branch. They have been visited each year and their requirements closely noted. As a result two new pavilions have been erected during the year, one on Stovin island near Brockville, which now possesses two pavilions, and one on Aubrey or Burnt island near Gananoque. Several open-air stoves have also been built; and a number of additional tables, benches and garbage cans placed on each island.

The parks on Stovin, Mallorytown and Grenadier islands are looked after by local guardians, while the islands lying west of Grenadier are cared for by Mr. J. B. MacKenzie, of Gananoque, who was recently appointed to succeed the late Mr. O. V. Goulette.

FIRE RANGING.

The number of temporary fire rangers employed during last year was 107, distributed as follows:—

Railway Belt, British Columbia.	37
Calgary District.	8
Edmonton District.	12
Athabaska District.	12
Along Grand Trunk Pacific railway in Alberta.	6
Prince Albert District, including Canadian Northern railway. .	18
Battleford District.	2
Moose Lake District.	1
Hudson Bay District.	8
Eastern Manitoba.	3

The year 1910 was specially dry. Warm weather came in March and melted the snow and afterwards the weather became cold and dry and remained so all spring, thus preventing the growth of new herbage and leaving the dead grass, leaves and other debris of the previous year in the best possible condition for causing fire.

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FOREST FIRES ON DOMINION LANDS, 1910.

The number and causes of fires were as follows:—

Causes.	Number caused by each.
Unknown.. . . .	343
Not reported.. . . .	188
Locomotives.. . . .	184
Settlers.. . . .	158
Campers.. . . .	113
Hunters.. . . .	89
Lightning.. . . .	55
Incendiary.. . . .	33
Travellers.. . . .	18
Indians.. . . .	12
Land seekers.. . . .	5
Logging engines.. . . .	4
Children.. . . .	3
Surveyors.. . . .	2
Other causes.. . . .	20
Total number.. . . .	1,227

Serious fires occurred in May along the Prince Albert line of the Canadian Northern railway and fanned by high winds, got entirely beyond control. A careful inspection of the burned district was made and the number of distinct fires reported was 25, only three of which were attributable to any other source than the railway, and even one of these three might have been due to sparks falling on the right of way. The total area burned over was 137 square miles and about 10,600,000 feet board measure of merchantable timber was damaged and destroyed, besides a large area of young growth which becomes a total loss.

In addition to the standing timber destroyed, about 75,000 logs belonging to the Great West Lumber Company were burned on Timber Berth No. 974. At Mistatim a sawmill of the Cowan Construction Company was burned, together with a quantity of ties and logs, and nineteen freight cars belonging to the Canadian Northern Railway Company were burned. The probable total loss as a result of these fires was half a million dollars.

Of the merchantable timber damaged about seventy-five per cent was suitable for manufacturing into lumber and was accordingly put up for sale on the condition that it should be cut within one year.

Several requests had been made to the railway company to have its right-of-way cleared of inflammable material in accordance with the requirements of the Railway Act, and the failure of the company to do so, was a largely contributing cause to the damage which occurred along this line.

Alberta suffered the most severely of the western provinces. In the northern district, particularly along the Athabaska river, there was heavy loss by fire in the spring, and although no close estimate was made, the damage done affected many millions of feet of timber. In the southern part of Alberta the dry conditions continued well on through the summer, and as a result fires started in every direction, and at one time there was a line of fire more or less continuous of over seventy-five miles. The total area burned over was approximately 494 square miles, and, although this included a considerable area of prairie and scrub land, still the damage to the forest was serious.

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The largest area of fire was in the district north from the Crowsnest pass between the Livingstone range and the Rocky mountains. One of the fires which burned over this tract started near a mill just east of the Crowsnest mountain. Several others were started in the vicinity of a ranch known as Boulton's ranch in the valley of the Livingstone river. As there were some seventeen fires started in the vicinity of this ranch, it is quite clear that they were of incendiary origin, but it was impossible to obtain sufficient evidence to get a conviction, and although a case was entered the charge failed. In this tract the quantity of merchantable timber burned was probably about one hundred million feet board measure, and about sixty per cent of the area was covered by young growth from thirty to forty years old.

One of the most disastrous fires was one that swept the valley of the High river for a distance of thirty miles, with a width of five or six miles. This tract was held under license by Mr. N. D. Beck, of Penetanguishene, Ont., and by Mr. John Lineham, of Calgary. It comprised one of the finest areas of mature spruce on the eastern slope of the Rocky mountains, running from 12 to 24 inches in diameter. The mature timber destroyed was forty-five to fifty million feet board measure. Of this a portion can be saved by immediate removal, but it means a disorganization of the business of the licensee and a hasty and wasteful cutting of a tract that could have furnished a regular and steady supply of timber for years to come. The quantity of immature growth destroyed was very large, and this is a total loss.

This fire was caused by a fire lighted as a smudge for horses by a survey party sent in by Mr. A. P. Patrick, D.L.S., to survey a timber berth for Mr. N. D. Beck. Although everything in the valley was dry as tinder at the time, this fire was set out where there was sufficient grass to carry a fire, and where the view from the camp was so obscured by a slight ridge that the fire could not be seen, and could easily get away without observation till it was too late to control it; and that was what actually happened. There was a bare gravel bar in the middle of the river at the camp, and in full view from it. A smudge could have been made there without the slightest danger, and the condition then prevailing demanded every precaution. The fire got away, and with a gale behind it, swept the valley. No fire ranger or staff of fire rangers could stop its progress.

A case was entered against Mr. Patrick, and the local magistrate fined him \$25 without costs. An appeal was made, and the appeal judge quashed the conviction, giving judgment that the fire was caused by an act of Providence. In regard to this judgment, I may say that I went over the evidence carefully myself, and also visited the ground to examine the conditions, and I am perfectly satisfied that the case was one of pure carelessness.

People sometimes talk as if the lumbermen had too great privileges, but here is a case where a timber holding was practically wiped out in two or three days, where he was forced to spend immediately a large sum of money in order to save anything from the wreck, and where his business for future years was completely disorganized. Unless otherwise financially able, it simply meant ruin to him, and all the result of carelessness, of one man not troubling himself to take ordinary precautions which meant almost no additional labour.

Fire occurred also in the vicinity of Elbow and Ghost rivers, causing the destruction of ten to twenty million feet board measure of merchantable timber.

None of the fires in southern Alberta are traceable to the railways, but were caused by the carelessness of individuals. A more thorough organization of this district is being made since it is being included in a forest reserve, but it is quite clear that a considerable campaign of education is yet required before the people and the courts realize that carelessness with fire is criminal in the highest degree.

As the work of the fire ranger is arduous and trying, and frequently one of extreme danger, it is gratifying to know that the work is appreciated, and I quote with pleasure the following extract in regard to one of the Dominion fire rangers which appeared recently in an article in the *Saturday Evening Post*:—

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'It has always been difficult to understand the difference in mental attitude toward the restraints of the law that exists between the American and the man who lives just north of him, across the Canadian line. In that country it is not considered a hardship to pay either reverence to nature or a tribute to those in whose charge lies the protection of nature and natural resources. A thousand miles north of the British line one has seen a fire guardian, the only officer of his kind in a section of country hundreds of miles in extent. A splendid, quiet, self-respecting chap this man was too; one whose word was law and accepted as such unhesitatingly by red and white. Part of this man's duty was the posting of fire notices, each of which had a good, stiff penalty attached, in all the places where human beings, red or white, were apt to see them—steamer landings, fur posts, traders' stores. Nor did this man dread the red men so much as he did the newcomers of the white race, always more careless about fires than were the aborigines.

'One day during a steamer voyage this fire guardian saw smoke on the horizon far inland from the river on which we were travelling. He stopped the boat at once, got his pack together and went ashore. As he figured it out, this fire was forty miles away, probably at the edge of a certain large prairie surrounded by heavy woods. He would reach it in the afternoon of the second day on foot. He would carry most of his camp kit on his back until that night; then would cache some of it, and would leave yet more of it midway of the next day, cached against his return to the river, where he could get supplies or find the trail in and out of the country. He did not know who had started the fire or what shape the fire itself would have by the time he got to it. All alone, a sturdy and self-reliant figure—representing the law, representing civilization even in the wilderness, representing a decent regard of organized society for the organized society that is to follow us—he set out on foot for his wilderness journey across an untracked country. In all of one's experience with outdoor men, rarely has one met a better, simpler and nobler figure than this one.'

FIRES AND RAILWAYS.

Fires along the railways are frequent, and although all of them cannot be charged directly against the railways still they are responsible for the large proportion of them.

Fires from the railways may be caused by sparks from the locomotive escaping either from the smokestack or ashpan. The regulations of the Board of Railway Commissioners require the thorough covering of both with netting of a specially designated character. In order to assist in seeing that these regulations were being effectively carried out officers of the department were appointed agents of the Board at divisional points on the railway. These officers have since been regularly inspecting locomotives and have helped towards making the situation along the railways safer.

Another source of danger arises from the right-of-way being frequently covered with combustible material contrary to the provisions of the Railway Act. Representations on this subject were made to the Board of Railway Commissioners and an order was issued by the Board to the railway companies calling their attention to the provisions of the Act in this respect and the necessity for the companies complying with it. The officers of the department acting as agents of the board were also instructed to report as to the carrying out of this requirement.

Patrols of fire rangers have been maintained along lines of railway under construction through forested districts, namely, the Grand Trunk Pacific railway, west from Edmonton, the Canadian Northern railway, north from Prince Albert, and in the railway belt in British Columbia, and the Great Northern Railway also in British Columbia, and the Alberta Central railway in Alberta. On all these lines the right-of-way has been thoroughly cleared of debris and the debris burned on the right-of-way in accordance with instructions. The patrol on such construction work has been thoroughly satisfactory.

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IRRIGATION.

The specially dry season of 1910 in southern Alberta and Saskatchewan, forced on public attention the water supply problems as one of first importance. The fall of 1909 was unusually dry, little snow fell during the winter, and there was little or no rain during the spring, or until the late summer or fall. Many small streams dried up entirely, so that in such places even a supply of water for domestic purposes was difficult to obtain. The drying up of such small streams also prevented their use for irrigation purposes, and those who waited to irrigate from them during the summer, found that the supply had failed. Where a water supply was available and was used for irrigation purposes, the results showed the benefit of having such a resource to depend upon.

When attending the irrigation convention at Pueblo, Colorado, last September, I had the opportunity of seeing a number of the irrigation districts of the western states, and the development which has been taking place there in recent years, as a result of the irrigation works established is striking. The attitude there towards irrigation is that it is an unmixed blessing, and faith in it is justified by the increased prices of lands in irrigated districts, and the substantial growth and development seen throughout such districts. If irrigation were taken up as seriously in Canada, the development possible would be incalculable.

HYDROGRAPHIC SURVEYS.

During the year the first report of the hydrographic surveys in the irrigation district was issued. It brought together the results of the measurement of streams so far as determined up to the time of publication, and will form a most useful reference work for engineers and others having to deal with the water supply in the irrigation district. The work will, however, have to be continued for some years before general averages of sufficient reliability can be obtained.

The divisions of the district covered by the hydrographic survey are Calgary, Macleod, Milk river and Maple creek. This covered the principal streams of the irrigation district, such as the Bow, Elbow, Oldman, Waterton, St. Mary, Milk, Belly and south Saskatchewan rivers, and the streams flowing from the Cypress hills.

A special examination was made of the valley of Moosejaw creek in order to determine the water supply and the storage possibilities on this creek. This creek is a source of water supply for the city of Moosejaw, and for a number of other smaller places along the Soo line of the Canadian Pacific railway, and, although a small stream, it is therefore of considerable value. The measurements of flow on this stream are being continued.

The observations on the St. Mary and Milk rivers are specially important, as the waters of these rivers are a subject of treaty with the United States, and are to be divided with that country. I particularly call attention to the observation of the officer in charge of this work in his report attached, in which he points out the expensive nature of inspections on Milk river and the difficulty of getting reliable results owing to the shifting nature of the channel, and suggests the construction of concrete weirs at the points where the river crosses the international boundary. The cost of such weirs is estimated at \$5,600, but they would save in the second year almost the total cost of inspection which, with two parties, costs \$5,200 per annum.

The hydrographic survey will be extended immediately to the Red Deer river and its tributaries, and to the Wood mountain district, as applications for water in the districts in question are now being received and information in regard to the water supply is required. The survey should be extended to all important streams in the west without delay.

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The proper means for carrying on river profile and reservoir site examinations, outside of the work done on Moosejaw creek, were not available during last season, but as a small appropriation to cover such work has been provided this year, it is hoped to overtake such work of this kind as is of a more pressing nature.

Respectfully submitted,

R. H. CAMPBELL.

IRRIGATION SCHEMES, 1910-11.

	Number of Schemes.	Acres Irrigated.
Licensed.	29	6,516.75
Authorized.	41	16,754.7
Applications.	16	5,860.8
Total	86	29,132.25

	Railway.	Municipal.	Domestic.	Miscellaneous.	Total.
Licensed.	12	3	..	..	15
Authorized.	29	1	..	3	33
Applications.	12	7	2	..	21
Total.	53	11	2	3	69

DRAINAGE.

Approved.	10
Applications.	1
Total.	11

No. 2.

REPORT OF H. R. MacMILLAN.

DEPARTMENT OF THE INTERIOR, FORESTRY BRANCH,
OTTAWA, April 4, 1911.

R. H. CAMPBELL, Esq.,
Superintendent of Forestry,
Ottawa.

SIR,—The statistical work conducted by the Forestry Branch during the past year has enabled us, for the first time, to form an authoritative estimate of the quantity and value of the annual forest products of Canada.

The quantity of timber cut and its value at the point of production for each of the classes of forest produce for 1909 is given in Table I herewith. The figures for quantity and value have been rounded off to millions.

TABLE I.

THE Cubic Feet of Forest Material required for, and the Total Value of, the Forest Products of Canada, 1909.

Product.	Cubic feet of Material cut in the forest.	Value.
		\$
Lumber, lath and shingles.....	840,000,000	87,500,000
Firewood.....	1,430,000,000	45,000,000
Poles, posts, rails.....	280,000,000	11,000,000
Pulpwood.....	150,000,000	10,000,000
Hewed ties.....	125,000,000	5,000,000
Cooperage.....	28,000,000	2,500,000
Round logs exported.....	20,000,000	1,000,000
Round mining timber.....	20,000,000	1,000,000
Square timber.....	3,000,000	1,000,000
Tanning materials.....		1,000,000
Miscellaneous products*.....	10,000,000	1,000,000
Totals.....	2,896,000,000	166,000,000

* Distillation wood, maple sugar and syrup.

The quantities given in Table I represent the amounts of timber cut in the woods to furnish the material necessary for each class of products. Owing to the very great waste in the utilization of wood in Canada only about one-half of this wood was ever actually put into use.

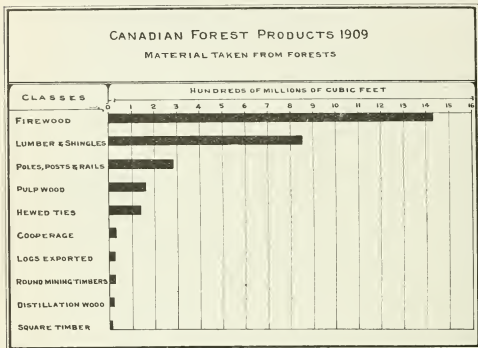
The values given in Table I are the actual values of each class of products at the point of manufacture. Were the timber products of Canada to be traced to their highest manufactured form their total value would greatly exceed the \$166,000,000 given here.

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Lumber, lath and shingles represent a little over one-half of the total value of the forest products of Canada; firewood constitutes over one-quarter of the total and the remaining one-quarter is made up of nine different classes of products, of which posts, poles and rails, and pulpwood are the most important.

Diagram I illustrates the relative importance of the different classes of forest products in point of wood used.

DIAGRAM NO. 1



About 2,896,000,000 cubic feet of wood are cut annually in the forests of Canada. One-half of this is used for firewood, three-tenths for lumber and shingles, one-tenth for poles, posts and rails. These three classes of products together require nine-tenths of the wood cut in this country.

The total value, at the point of production, of the annual forest products of Canada is at least \$166,000,000. This is \$22.44 for every person in Canada, March 31, 1909. In 1909, there were cut from Canadian forests about 400 cubic feet of timber for every inhabitant of the country. This is a per capita timber usage unequalled by that of any of the other important countries in the world.

The different classes of forest products will be discussed here in the order of their importance.

LUMBER, LATH AND SHINGLES.

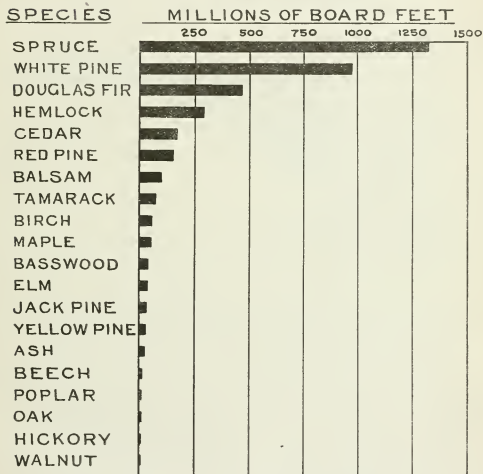
Lumber is Canada's most valuable forest product. There were cut in 1909 about 4,900,000,000 board feet of lumber worth at the mill \$80,700,000. Twenty different species make up this total, only six of which, spruce, white pine, Douglas fir, hemlock, cedar and red pine, reach a cut of over one hundred million per year. These six species constitute 86.5 per cent of the total lumber production of Canada. The relative standing of the different timbers contributing to the lumber supply of this country is shown

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in Diagram II. Spruce, which has been the leader this last two or three years, in 1909 formed 29.5 per cent of the total, white pine 27.4 per cent, Douglas fir 12.3 per cent, hemlock 7.9 per cent, cedar 5 per cent and red pine 4.4 per cent.

DIAGRAM No. 2

LUMBER PRODUCTION BY SPECIES. 1909



Soft woods constituted about 94 per cent of the lumber cut in 1907, compared with 6 per cent supplied by hard woods. The only Canadian hardwoods, of which over 20,000,000 feet are cut per year, are birch, maple, basswood and elm.

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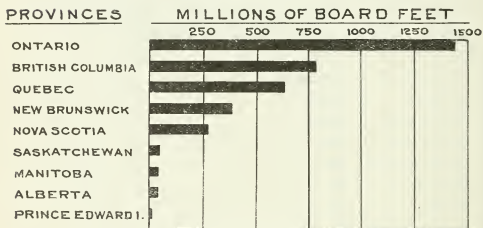
The valuable hardwoods, oak, hickory and walnut, are almost extinct in Canada. The total cut of these three species in 1909 was less than 10,000,000 feet, and was less than one-fifth as great as the quantities of these necessary woods imported in that year from the United States.

The relative lumber production of the different provinces is graphically represented in Diagram III.

DIAGRAM No. 3

LUMBER PRODUCTION

BY PROVINCES. 1909



Two-fifths of the lumber of Canada is produced in Ontario, one-fifth in British Columbia and one-fifth in Quebec; New Brunswick and Nova Scotia together make up the greater part of the remaining fifth, and but proportionately small quantities are manufactured in Saskatchewan, Manitoba, Alberta and Prince Edward Island.

The per capita lumber production in Canada in 1909 was about 684 board feet, probably the greatest in the world. The per capita production in the United States in 1909 was 470 board feet. It is probable that with an increased demand due to forest depletion in other countries, with the development of transportation system to northern forest regions, now inaccessible, the forest production of Canada will still further increase even though it has already reached proportions which under present systems of administration the forest of this country cannot permanently support.

There were manufactured in 1909 about 965,000,000 lath, worth about \$2,400,000. About one-half the lath manufactured were spruce and one-third were white pine; cedar, Douglas fir and hemlock made up the remainder. For every 3,000 or 4,000 feet of lumber milled there are produced enough slabs and edgings to make 1,000 lath. It is from this material, at present considered valueless for any other purposes, that practically all the lath produced in Canada is manufactured.

About 2,330,000,000 shingles, worth \$4,400,000, were manufactured in 1909. Cedar is the favourite shingle wood; three-quarters of the shingles manufactured in Canada

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are of cedar, the production being about equally divided between the red cedar of British Columbia and the white cedar of Ontario, Quebec and New Brunswick. Spruce and white pine are the only other species used to any extent for shingles; together with cedar they make up 98 per cent of the total output. The western white pine (*Pinus monticola*), of British Columbia, supplies three-quarters of the white pine shingles of Canada.

As nearly as can be judged almost as much cedar is used for shingles in this country as is sawn for other products.

Two-fifths of the shingles manufactured are produced in British Columbia, almost one-fifth in Quebec; the remaining two-fifths are supplied chiefly by New Brunswick and Ontario.

FIREWOOD.

It is estimated that in addition to the sawmill waste used for fuel, about 15,000,000 cords of firewood, valued at \$45,000,000, are consumed yearly in Canada. The use of wood for domestic fuel is general in the country excepting in the areas tributary to the eastern and western coal fields, the comparatively small prairie district where there is no timber, the denuded area of southwestern Ontario, and a few of the larger cities. Much, if not most, of the firewood used comes from the uncleared portions of farms in eastern Canada, and a fairly large proportion of it consists of hardwood timber which would be worth more if manufactured into lumber or other products.

All the common woods are used for fuel, but the species used to the greatest extent are maple, birch, beech and spruce in eastern Canada, tamarack, jackpine, spruce and poplar in central Canada, and Douglas fir on the Pacific coast.

POLES, POSTS AND RAILS.

There are used each year about 400,000 poles over twenty feet in length, and about 110,000,000 posts and rails, of a total value of \$11,000,000.

For the poles, which constitute the chief means of support for the transmission lines maintained by the telephone, telegraph, railroad and electric companies, cedar is practically the only native timber suitable. Nearly 95 per cent of the poles used in Canada in 1909 were cedar, mostly eastern white cedar. The remainder were tamarack, spruce and Douglas fir.

Wherever cedar is available it is also the favourite timber for posts and rails, as it is the only common Canadian wood durable in contact with the soil. Chestnut and oak are valuable for post timbers, but are native to only a small area in Canada, and are almost extinct. Posts and rails are usually secured as near as possible to the locality where they are to be used, and where cedar is not available the woods most commonly used are tamarack, spruce, jackpine, lodgepole, pine, poplar and Douglas fir.

PULPWOOD.

The cut of pulpwood for 1909 was nearly 1,700,000 cords, valued at \$10,000,000.

Over four-fifths of the pulpwood cut in this country is spruce; spruce and balsam together supply 99 per cent of the pulpwood. Other species included in the remaining one per cent are poplar, hemlock and jackpine. Three-fifths as much spruce is cut yearly for pulpwood as is cut for lumber. About 46 per cent of the pulpwood cut in Canada is domestically manufactured, and about 54 per cent is exported in the raw form to the pulp mills of the United States. Over one-half of the pulpwood domestically manufactured is manufactured in Quebec, about 30 per cent in Ontario, 14 per cent in New Brunswick and 4 per cent in Nova Scotia. Nearly all the pulpwood exported is cut in Quebec. About 70 per cent of all the pulpwood produced in Canada is cut in Quebec.

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The pulpwood which is yearly exported from Canada to the United States, keeps running 69 of the 251 pulp mills in the United States. If this pulpwood were manufactured in Canada, it would supply each year about 73 mills of the average size of those already existing. We have now 60 pulp mills in Canada. If we manufactured at home all the pulpwood which we cut, we would have about 133 pulp mills.

HEWED RAILROAD TIES.

In addition to the sawed ties, reported and classified as lumber, which Canadian roads, steam and electric, purchased in 1909, there were purchased 9,500,000 hewed ties, valued at \$5,000,000. The species used chiefly for hewn ties are cedar, jackpine, tamarack, hemlock and spruce. The making of hewn ties involves a tremendous waste of timber and leaves a great accumulation of slash in the woods, which as a rule results in the destruction of the entire forest by fire.

COOPERAGE.

Two classes of cooperage are manufactured, tight for liquids, and slack for materials other than liquids. Tight cooperage requires a very high quality of wood; white oak is preferred and is used almost exclusively. There is no supply of wood suitable for high grade tight cooperage in Canada, consequently there is practically no tight cooperage industry excepting that which depends upon logs or staves imported from the United States, or excepting a low grade of tight cooperage for less penetrating liquids for which some Canadian woods are suitable. There were manufactured in Canada in 1909, 567,000 sets of tight heading and 12,000,000 tight staves. The greater part of the tight cooperage used in Canada is manufactured in the United States, and of the remainder a good proportion is manufactured in Canada of logs imported from the United States.

Most of the woods common to Canada are suitable for the manufacture of different grades of slack cooperage. There were manufactured in Canada in 1909, 139,000,000 slack staves, 11,000,000 sets of slack heading and 47,700,000 hoops. Four-sixths of the staves were elm, one-sixth were spruce, and the remainder chiefly poplar, maple, birch, beech, basswood and ash. About one-quarter of the heading was poplar, one-quarter elm, and the remainder basswood and spruce. Nearly 90 per cent of the hoops are elm. Over three times as much elm is used for cooperage in this country as is cut for lumber. The total value of the cooperage output for 1909 was \$2,500,000.

LOGS EXPORTED.

Public lands regulations prohibit the export of unmanufactured logs from the greater part of Canada. The logs exported are chiefly cut on private lands in Ontario, Quebec and New Brunswick. At times cedar logs are exported from British Columbia. There were exported in 1909, 20,000,000 cubic feet of logs, valued at \$1,000,000. Practically all logs exported go to the United States.

ROUND MINING TIMBERS.

The operation of the mines of Canada requires the cutting each year of about 20,000,000 cubic feet of round timbers worth about \$1,090,000. About eight-ninths of this is used for the coal mines and one-ninth for the metal and other mines.

Softwoods form the chief source of supply, and as a rule thrifty young trees are used.

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SQUARE TIMBER.

In addition to sawn timber which is scaled and reported upon as lumber, about 3,000,000 cubic feet of timber are cut each year for the export square timber trade. Practically all of this timber goes to England; one-half of it is white pine, one-third birch and the remainder chiefly red pine and elm. The export in 1909 was valued at almost \$1,000,000.

The square timber trade reached its height in 1877 and, owing chiefly to the disappearance of the supply of timber fit for squaring, has declined steadily since that date. The average white pine export for the decade 1871-1880 was about 15 times as great as it was in 1909; the export of oak was then 194 times what it was in 1909; the export of birch has kept up better, it was in 1909 nearly one-half as great as it was in the seventies. The export of elm has decreased largely; it is now only one-thirteenth as great as it was thirty years ago. The other timbers, red pine, ash and maple, are only exported to about one-tenth the quantity previously shipped.

TANNING MATERIALS.

The only native vegetable tanning material in Canada is a forest product, hemlock bark. The value of the hemlock bark and the extract of hemlock bark placed on the market in 1909 was over \$1,000,000. About four-fifths of this was used at home, the remainder exported.

Canadian tanneries used in 1909 about 90,000 cords of hemlock bark, and about 2,250,000 pounds of extract of hemlock bark of a total value of over \$800,000. At one time tanneries in this country depended almost altogether upon hemlock, but owing to a variety of reasons, the decreasing supply of hemlock, the introduction of cheap foreign, chiefly tropical, vegetable tannins, and the multiplication of chemical processes of tanning, hemlock now represents by value only about three-fifths of the vegetable tannins used, and a much smaller proportion of all tannins, vegetable and chemical.

There were exported in 1909 about 20,000 cords of bark, worth \$120,000, and about 3,500,000 pounds of extract of hemlock bark, valued at \$80,000. The bark goes to the United States, the extract to Great Britain. This represents a great decrease from 1880 when the export of bark was 82,000 cords worth \$442,000, and 1883 when there were exported 20,000,000 pounds of extract valued at \$305,000. The exports of tannins from Canada are now less than two-sevenths as great as they were thirty years ago.

All the hemlock bark produced in Canada is not used. Though the bark of the British Columbia hemlock is richer in tannin than that of the eastern hemlock, it is all wasted; and it is estimated that at prevailing prices eastern hemlock bark is wasted to the extent of \$400,000 yearly.

MISCELLANEOUS PRODUCTS.

In addition to the different classes of products enumerated above, enough material is taken from the forests of Canada each year to make up another \$1,000,000.

Nearly 100,000 cords of wood, worth over \$300,000, are used yearly by the destructive distillation plants manufacturing wood alcohol, acetate of lime and charcoal. Still more valuable is the maple sugar industry of the eastern provinces.

If the forests of Canada are administered for another three or four decades as they are administered at present it will be impossible for them to produce yearly such crops as that described above. No one can doubt this save those who do not know that our seemingly inexhaustible white pine forest has been so reduced that it now contains only thirty years supply at the present rate of cutting, that our valuable hardwoods have been cleared away to such an extent that we now import each year more hardwood lumber than we produce domestically, that our square timber exports are

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only one-twelfth what they were thirty years ago, and that two-thirds of the original forests of Canada have already been destroyed by fires. Under the present system of exploitation the forests of Canada are decreasing steadily in area and in available products.

The decrease of the forest area of Canada, and the consequent decrease in available forest products is nothing short of a national calamity. It is not the purpose here to touch upon the favourable influences which the forest exerts upon climate and waterflow, indirect values which are recognized by every one, but to point out how indispensable is the forest as a crop producer.

The forests of Canada stand chiefly upon lands unfit for agriculture even in its most intensive form. They produce a crop valued at \$166,000,000 per year. The harvesting and first manufacture of this crop employs labour to the extent of \$100,000,000 yearly, and probably almost as much more is spent in turning out the more highly manufactured forms of wood products. In addition to supplying a large proportion of the population of Canada with their means of livelihood, the products of the forest are for the whole population the chief source of heat and shelter, are the most important raw materials for the factories, enter largely into the construction of nearly all articles of human use, and furnish one-sixth of the total export of Canada.

Unless the principles of forestry are adopted by those who are responsible for the administration of the forest lands of Canada there is nothing surer than that within a comparatively short period of years the forests of Canada will be so destroyed by fire and exploitation, heedless of the future, that not only will there be no surplus of forest products for export, but there will be an insufficiency of any grade of timber for the building of the homes, the carrying on of the works of the population in this country; and on the mountainous, rocky, sandy and other non-agricultural lands of this country where the forest stood there will be produced nothing. All the symptoms which have ever been met with in history previous to the destruction of the forests of any country, now exist and daily increase in Canada.

Forestry seeks not only to prevent the destruction of the forests but to secure their improvement so that they will be in a position to produce each year, without any lowering of their value, even greater crops than they have yet produced under methods of exploitation. To secure this result forestry must achieve fire protection, prevention of waste in the logging, manufacture and use of lumber, and the reforestation of barren and cut-over lands.

FIRE PROTECTION.

The measures adopted to protect the forests from fire are now generally understood. They are the removal by education or legislation adequately enforced of the causes of fire, the organization of a patrol to find and extinguish such fires as will inevitably start, and the improvement and organization of the forest areas so as to render most efficient the efforts of fire fighters and to minimize the chances of any fire getting beyond control.

PREVENTION OF WASTE AND LOSS OF TIMBER.

One aim of forestry is to further the productivity of the forests by securing the most profitable use of all forest products. There is now a tremendous waste in the use of forest products, a waste which every year leads to the cutting of more than twice as much timber in the forest as ever comes into use. Investigations have not as yet been conducted in Canada to show what percentage of the merchantable timber cut in the forest is wasted, but in the United States, where conditions of logging, manufacture and utilization are similar to those in Canada, it has been found that from 10 per cent to 35 per cent of the merchantable timber is, as a rule, left in the

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woods; that of the logs which reach the mill there is lost 49.1 per cent volume, and that after the lumber leaves the mills from 10 to 25 per cent of it is wasted before it is put into use. The waste in logging is due to—

1. Poorly conceived and poorly executed logging plans.
2. Failure to remove from the woods merchantable material which is actually cut.
3. Failure to cut and remove inferior trees, partly defective trees and inferior species which are merchantable.
4. Failure to remove small bodies of timber in comparatively inaccessible places on which the profit is low.
5. The removal of only one class of timber from the forest when others are present and merchantable.
6. Failure to utilize merchantable dead timber.
7. When inferior trees and inferior species are available, the use for construction work of valuable species and valuable trees which cannot be otherwise utilized at a later time.
8. Failure to use materials for the purposes to which they are best suited.
9. The cutting of trees for tan bark only, and waste of logs.
10. The cutting of unnecessarily high stumps.
11. Failure to utilize all of the merchantable material in tops suitable for saw timber or cordwood or other use.
12. Failure in requiring the proper variation in log lengths.
13. The non-use of odd and short log lengths.
14. Unnecessarily long trimming lengths.
15. Unnecessary breakage in felling and transportation.
16. Too great loss in driving.
17. Careless use of logging machinery, such as donkey engines.

All these causes given in the report of the National Conservation Commission as reasons for the great loss of timber in logging in the United States operate in Canada. On one operation on Dominion Lands in the Crowsnest Valley, Alberta, it has been noticed that the waste of timber per square mile was 366,400 lineal feet of mining props, and 480,000 board feet of saw material, or over 10 per cent of the total originally standing. In other districts this loss exceeds 30 per cent and even reaches 50 per cent.

On lands under forest management, it has been found possible to reduce the waste due to the causes enumerated above to less than 2 per cent. There is no loss in preventing this waste, but there is sometimes no profit except the profit which accrues to the country through securing the use of a natural product which would otherwise be lost.

[The loss of timber in the manufacture of lumber is partly unavoidable and partly avoidable. The different sources of loss are:—

- (a) Loss due to kerf; 15.5 per cent.
- (b) Loss due to edging and trimming; 10 per cent.
- (c) Loss due to slabs; 10 per cent.
- (d) Loss due to careless manufacture and accident; 4 per cent.
- (e) Loss due to standardizing lengths and widths of boards; 2 per cent.

Much of this waste may be prevented by:—

1. The general adoption of thin saws, band saws and re-saws.
2. By the elimination of gang saws.
3. By manufacturing in round-edged or 'waney' form a large part of the lumber which is to be worked over.
4. By modifying market requirements and usage so as to allow boards of random widths and odd lengths.
5. By admitting short and narrow boards.

6. By modifying standard grading rules to allow defects on ends and edges without seriously reducing the grade of a board.

7. By more careful manufacture and more perfect machinery.

8. By utilizing short boards, slabs, and waste for such articles as matches, tooth-picks, excelsior, novelties, and other purposes for which large boards and planks are now used.

There is great waste of lumber after it is sawn and before it is put into use, due to loss in seasoning, and loss in manufacturing. It is estimated that in the lumber used by the building trades there is a waste of 3 per cent in seasoning, due to checks, stains, &c., and a waste of 12 per cent in cutting for use. There is a seasoning waste of 5 per cent and a manufacturing waste of 20 per cent in the timber used in the furniture industry. There is a waste of 15 per cent in the timber used in the manufacture of boxes, and a waste of 10 per cent in timber used by transportation lines. There is an average waste of 10 per cent in seasoning, and of 15 per cent in manufacturing vehicle parts. Most of the waste of timber in utilization is unavoidable, but with careful management a portion of it may be saved.

A large part of this yearly consumption of timber in Canada is due to the necessity of replacing timber which has decayed in use. The necessity of replacing at frequent intervals all the timber used for trees, poles, posts, mine props, piles and shingles is due chiefly to the destruction of these articles by decay.

It has been proven in Europe and the United States that a cheap process of chemical treatment applicable to almost all timbers doubles the life of the timbers. Doubling the life of poles, posts, mine props, ties and shingles would mean that only half as much timber would need to be cut each year for replacements as is now cut. The general adoption in Canada of a system of giving railroad ties preservative treatment before use would bring about a saving of over 5,000,000 ties yearly. This would, allowing for the cost of treatment, mean an annual saving of from \$600 to \$350 on every mile of track in Canada.

The general use of timber preservatives is particularly important in Canada because we have in our forests but limited quantities of naturally durable timber, and very large quantities of timber which decay quickly in contact with the soil. The durable species are being selected, the non-durable species are being left or are being used at a loss. Were the non-durable species given a preservative treatment, for which they are naturally adapted, they would give most efficient and economical service, would add to the revenues and resources of the country, and would lessen the drain on the naturally durable species.

It is a part of forestry to secure the economical use of timber by reducing the waste in logging, reducing the waste of sawing, reducing the waste in manufacture and reducing the loss of timber due to decay. For this purpose it will be necessary to have trained men study all the different sources of loss and prove by experiment that more economical methods may satisfactorily be adopted at every point where there is now an undue loss of timber. This has been done in other countries, must be done in Canada and will be done in Canada.

REFORESTATION.

The chief reason for the general admission that there is a need for scientific forest management in this country is that cut-over lands are not restocking with valuable species of trees. Under the exploitation system of handling our forests, land which is capable of producing a continuous crop of timber usually produces but one good crop. After the virgin crop is removed it is just an accident if there is another, and if there is another there is either required an unnecessarily long period for its production, or it is composed largely of trees of poor quality.

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One great aim of forestry is to secure the reforestation with valuable species of cut-over timber lands. There are many who believe that this reforestation consists of the planting of a small tree where a large one has been cut. There are instances where it is advisable to plant cut-over areas to secure another crop of timber, but planting, though it produces the best crop, is an expensive operation, and for that reason is not at present practicable, except on a limited scale, in so extensive a country as Canada. Foresters rely rather upon natural reproduction than planting to secure the restocking of cut-over lands necessary for the permanence of the productivity of the forest.

The securing of natural reproduction is dependent upon the method of removal of the original forest. It is the intention of the forestry branch to so regulate the cutting of timber on forest reserves that there will be produced conditions conducive to the plentiful reproduction of the most valuable species of trees. In order that this may be done, it is necessary that the tract to be logged be studied by trained men. These men, familiar with the markets of the region, and with the qualities and habits of the trees, will first decide what trees occurring in the present forest it is most profitable to encourage in the next; will then study the conditions under which the seedlings of these trees are most readily produced, and will draw up a plan of managing the logging operation so that there will be assured an abundance of seed of the valuable species of trees, that the seed will find the condition of the seed bed most conducive to its germination, that the seedlings will receive the right amount of light and shade, and that they will be protected from fire.

To secure these desiderata without imposing regulations which increase logging costs or interfere with logging operations, requires common sense, experience and a high degree of technical knowledge.

There is no rule of thumb for the securing of natural reproduction on cut-over areas. The different trees have each different habits of growth which necessitate different methods of treatment, and in every locality there are varying market requirements and logging methods which require special consideration.

A brief outline of the method of treatment of one important species, the lodgepole pine of the Rocky mountains forest reserve, will serve to show how the above mentioned principles may be applied.

Lodgepole pine grows in an even-aged forest in which but few other trees occur. As all the trees in a lodgepole pine forest are about the same age, they usually vary but little in size. They are all ready to cut at the same time. When a large number of trees are cut from a lodgepole pine forest and only a few left, these few usually break off or blow over. They have not been accustomed to the full force of the wind.

There is always abundant seed in a lodgepole pine forest; the seed is well protected by heavy cones and is uninjured by a light fire. The seed of lodgepole pine germinates best on a mineral soil such as is exposed by a fire, and the seedlings require full light for their development.

Knowing these habits of the tree, the forester plans to have all the trees cut on the tract to be logged except a few small clumps or strips so located as to throw seed on the cleared area. On the logged area everything that can possibly be used is taken, the remainder is scattered and burned. The clumps and strips of trees left are protected from the fire.

The cutting of all the trees exposes the cleared area to the full strength of the sun, the burning of the brush exposes the mineral soil, and opens the cones which have been on the ground, releasing the seed. This seed, together with that which blows from the clumps and strips of trees standing, readily germinates in the full light on the mineral soil, and there is produced a thicket of young seedlings, all of lodgepole pine, which, in the absence of any shade, grow very rapidly. The burning of the brush is also a safeguard against further fires.

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An instance of the mode of management adopted for another important tree in the Rocky Mountains forest reserve, the Englemann spruce, will serve to illustrate how important it is that a different method of management be adopted to suit the different habits of trees.

Englemann spruce grows in uneven-aged forests, in which there are all sizes of trees from the youngest seedlings to the oldest trees. There are frequently mixed with Englemann spruce other trees. In a natural spruce forest there are always a large number of trees below commercial size. Spruce produces seed every three or four years, the seed germinates best in the shade on moist soil, and the seedlings require to be shaded from the direct sunlight.

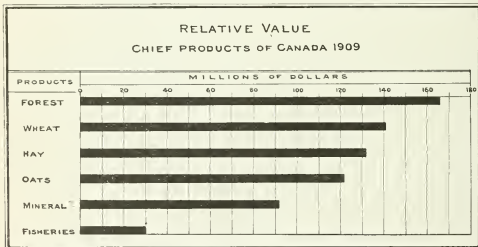
Spruce reproduction is best secured when the logging is confined to a selection of the larger trees. The removal of the large trees gives the medium and the small trees a chance to grow more rapidly. When the trees left, next bear seed, it is distributed by the wind and other agencies through the small openings left by the removal of the large trees where it finds a moist soil protected from the direct sun. Under such conditions it germinates well and the young trees find the best conditions for their growth.

When a forest is logged under this system, care is taken to protect the young trees, and the brush is usually lopped so as to lie flat on the ground and decay readily. The medium sized trees left at the first logging operation form the basis of the next cut in a few years.

It may readily be understood from a comparison of the habits of the two trees here discussed that a plan of management that would favour one tree would be fatal to another.

The protection of the forest from fire, the improvement of Canadian methods of utilizing wood, the regeneration of the forest by planting and by encouraging valuable natural reproduction is a task which will require for its accomplishment many years, much money and a large body of trained men. That it is a very important task is proven by the position which the forest holds as a producer of natural wealth.

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The forest products of Canada are more valuable each year than any of the field crops, are nearly twice as valuable as the total mineral products, and are over five times as valuable as the total of inland and ocean fisheries. Over 90 per cent of this great crop is produced on public lands. Under wise scientific management the public forests of Canada will perpetually maintain their productivity; under unwise manage-

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ment or lack of management they will be destroyed by fire, or when once harvested will produce no more crops. The great annual value of the forest products of Canada is the best argument that can be put forth to prove that money should be provided to secure for the public timber lands the highest grade of technical officers.

Respectfully submitted,

H. R. MACMILLAN.

No. 3.

REPORT OF A. KNECHTEL, INSPECTOR OF FOREST RESERVES.

DEPARTMENT OF THE INTERIOR,

OTTAWA, March 31, 1911.

R. H. CAMPBELL, Esq.,

Superintendent of Forestry and Irrigation,
Ottawa.

SIR,—I have the honour to submit hereby my third annual report, which describes the work done on the Dominion forest reserves during the year ending March 31, 1911.

There were nineteen permanent rangers employed on the forest reserves who are charged with carrying out the administration of the reserves under the instructions of the department. On the large reserves the chief rangers have charge of the work of several permanent rangers. The success which has attended their efforts will appear in this report. Additional men were employed during the summer to help the rangers with the work of cutting fire guards. The rangers had authority to call out additional men in case of fire.

FOREST FIRES.

During the spring of 1910 it was exceedingly difficult for the forest rangers to guard the reserves against fire. The snow left the ground very early; in Manitoba and Saskatchewan before April 1, and in Alberta there was scarcely any snow on the ground later than March 15.

Not only did the snow leave the ground early, but the season was exceptionally dry. The following quotation is from the meteorological report of the province of Saskatchewan for the year 1910:—

‘The year 1910 was noted for its early spring and sultry midsummer weather. The spring was most favourable for seeding, which was fully three weeks earlier than usual. March was exceptionally mild. The weather continued dry and warm throughout April. During the first two weeks of May, cool weather, frosts and high winds were experienced, but more favourable conditions prevailed during the remainder of the month, when frequent showers proved very beneficial to the farming interests. Precipitation was heaviest in the southern portion of the province. June was very much warmer and drier and had less of a rainfall than usual during this month. A narrow area in the southeast had a little more rain than the rest of the province. July weather conditions may be said to have been a replica of those of June. The effect on the crops, however, was more severely evident by reason of the longer spell

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dry, hot weather. During this month the drought was most pronounced in the south-east, where the total rainfall of the month was less than one inch. The average precipitation for the month was only 1.44 inches, as compared with 5.36 inches in July, 1909, and 2.28 inches, the average of ten years. The temperature exceeded the average of the preceding twenty years by about three degrees.

Such were the weather conditions in Saskatchewan for the spring of 1910, and these may be considered the average for the three prairie provinces. In Manitoba the drought was rather less pronounced, but in Alberta it was much intensified, especially in the southern half.

DESTRUCTION OF MERCHANTABLE TIMBER.

Notwithstanding these adverse conditions the fires did but little damage to merchantable timber on the forest reserves. In British Columbia, 6,500 feet of saw timber was destroyed on the Monte Hills reserve, and 13,400 feet on the Tranquille reserve. On the Manitoba and Saskatchewan reserves there was none killed. On the territory which is now the Rocky Mountain forest reserve, large quantities of saw timber were destroyed, but this reserve was not established until some time after the fires started, and was at no time during the fires under forest reserve management. I am adding to this report, however, a statement of these fires, as the territory was set aside as a reserve later.

A large total loss of saw timber, estimated at two hundred million feet board measure, occurred along the eastern slope of the Rocky Mountains. Fires began about the middle of April and were not all extinguished before August 5. They covered the following territories, the total area being approximately 494 square miles:—

In the Porcupine Hills a fire occurred in townships 12 and 13, range 1, west of the 5th meridian, which covered an area of fifty square miles, destroying about 50 per cent of the timber. This was the beginning of the fires on the eastern slope of the Rockies. It occurred in April and was fought under the direction of Fire Ranger Wm. Flack. A ploughed guard of two furrows was made across the hills between townships 11 and 12 for a distance of six miles.

From Coleman in township 8, range 4, on the Crowsnest railroad to Sheppard creek in township 15, range 3, west of the 5th meridian, a burned strip extends in a northeasterly direction 42 miles long, having an average width of six miles. This strip was mostly covered with young timber from 30 or 40 years of age with small areas of mature timber. About 80 per cent of the trees were killed. A ploughed guard of four furrows was made along the eastern side of the fire in townships 13, 14 and 15 for a distance of 75 miles.

In townships 17, 18 and 19 a fire followed the Highwood river for a distance of forty miles, with an average width of about three miles. About 50,000,000 feet of saw timber was destroyed in this fire and a large area of young spruce, pine and poplar from thirty to forty years old.

Fire occurred in township 2, range 4, west of the 5th meridian, destroying about a quarter township of large spruce, and in township 21, range 6, west of the 5th meridian, killing young pine which covered about half the township.

In townships 28 and 29, ranges 6, 7 and 8, west of the 5th meridian, a large fire occurred which burned during the months of July and August and covered an approximate area of 110 square miles. About 14 square miles of this area was covered with good merchantable spruce and pine which would yield probably 25 million feet of lumber. At least 10 million feet of this was killed. The remaining area bore a good growth of young pine and spruce, most of which was killed, though a sufficient quantity was left green and may re-seed the ground.

Along Fallen Timber creek in township 30, ranges 6 and 7, a fire destroyed about a quarter township of young pine about four or five feet high.

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FOREST CONDITIONS ON ROCKY MOUNTAIN FOREST RESERVE.

There is no doubt that Mr. W. I. Margach, the chief forest ranger, and his assistant rangers, did everything in their power to stop the spread of fire. When fire once gets started on the eastern slope of the Rockies, it is a very difficult matter to get it under control. In eastern Canada and on the eastern slope of the Rockies when a fire breaks out, rain usually comes in two or three days and puts it out, but the moist winds which climb the western slope are robbed of their moisture by the mountain tops and come down the eastern slope dry and hot, and fire fighters are likely to look in vain for many days for a providential rain.

On the eastern slope the abundance of dead wood lying on the ground facilitates the destruction of the woods by fire. It remains many years without rotting. In moist climates the frequent rains through the summer cause dead wood to decay quickly. In the eastern provinces and on the western slopes of the Rockies rotten wood is everywhere in evidence. On the ranches at the foot hills of the eastern slope, the weather is so dry that hay cures standing in the fields, and carcasses of dead animals mummify. In the summer of 1909 I made a trip with the Chief Forest Ranger through the hills from the Highwood river southward to Frank on the Crow's nest railroad. For many miles we followed an old horse trail that had formerly been much used by the Stony Indians as a hunting trail, but had for a long time been abandoned. There were so many dead, dry trees lying across the trail that we thought it cruelty to the horses for us to stay upon their backs. We went ahead, climbing over the logs, and the horses scrambled after. These logs had been there for many years and were by no means rotten. Such windfall areas through old burns are frequent throughout the mountains.

There is considerable snow in the hills through the winter, but moisture in that form does not rot timber as quickly as summer rains. Rot is caused by fungi whose growth is favoured by moisture in warm weather. In winter the weather is cold and when spring comes the snow quickly disappears.

ORGANIZATION OF PROTECTIVE FORCE FOR ROCKY MOUNTAINS.

Since the territory has been placed under forest reserve management the protective work has been reorganized. Heretofore the rangers were employed only temporarily during danger periods. When the danger seemed to be over they were discharged and when danger reappeared they were re-engaged. Now the reserve is blocked off into large blocks having each a frontage towards the settlements of about thirty miles. A ranger is employed by the month upon each block and he is held responsible for its protection. During the danger periods he keeps constantly on patrol. When there is little danger he employs his time in clearing existing trails, making new trails, ploughing fire guards, marking and cutting out the boundary line of the reserve, and guarding the reserve against trespass.

The rangers selected for the Rocky Mountain forest reserve were selected on the qualification of being strong, sober, industrious men, used to logging operations. They can locate and estimate timber, scale timber, do a logging job, run a sawmill, build log houses, organize and manage a crew of fire fighters, and have education enough to report intelligently to the department.

At convenient points on the reserve, close to main trails, the rangers are instructed to build caches for fire fighting tools. These will be built of logs. The inside measurements will be 14 feet by 16 feet by 8 feet. The roof will be made of boards covered with sheeting and earth. The cache will have a good floor and door, and a small window with heavy board shutter. The cache equipment will be a cook stove with necessary utensils, a bed for the ranger, and the following tools for fighting fire:—

3 long handled square point shovels.

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12 long handled round point shovels.

9 axes.

12 grubhoes.

6 galvanized pails.

6 brooms.

Where ploughed fire guards are to be made a heavy brush-breaking plough will be added to the above equipment.

Telephone connection is to be established between the caches and the settlements, so that when fire occurs assistance can be promptly obtained to put it under control.

DESTRUCTION OF YOUNG GROWTH ON FOREST RESERVES.

If a fire runs over a territory but does not destroy saw timber, the general public, and in some cases forest rangers, consider that no damage has been done, though large areas of young reproduction growth may have been destroyed. When one considers that it costs \$12 an acre to plant a forest with young pine or spruce trees, and that the trees will at the time of planting be only a foot high, it becomes evident that fire, running over large areas well stocked with young trees of these species, causes great loss. To ascertain the loss per acre, one should figure the amount of \$12 with compound interest at three per cent for the number of years that it has taken the trees to grow from a foot in height to their height at time of destruction. I state three per cent, as that is about the annual rate of interest yielded by the planted forests of Saxony, Germany.

There is a general impression that such a forest when destroyed will restore itself. It may, if there are a sufficient number of trees left to throw a plentiful supply of seed. Otherwise it will not be restored by natural seeding, and at best in pine and spruce forests, it is a very slow process. On the Monte Hills reserve in the railway belt of British Columbia young pine and spruce were destroyed on 853 acres, and on the Tranquille reserve in the same region 1,707 acres. On the Rocky Mountain forest reserve, as has been already stated, there were large areas of such young growth destroyed.

On the other reserves it was nearly all young poplar that was killed. In such case the loss is not so great. To have young poplar growth restored, the ground does not need to be planted, nor is it necessary to have seed scattered. Poplar restores itself by shoots from the root. It is seldom that a fire kills the roots of a poplar woods. In one year after a fire, young shoots as high as a man's head may cover the ground. Even if fire runs over, the ground several years in succession the growth still continues to come.

Of young poplar not large enough for firewood there was destroyed in Manitoba reserves as follows: 6,560 acres on the Riding Mountains, 9,600 acres in the Porcupine Mountains, and 2,500 acres in the Turtle Mountains.

NUMBER OF FIRES AND THEIR CAUSE.

There are not complete data as to the number of fires that occurred on the eastern slope of the Rocky Mountains. On the other forest reserves the rangers extinguished in all 73:—On the Riding Mountain, 27; Duck Mountain, 12; Porcupine Mountain, 7; Turtle Mountain, 8; Spruce Woods, 10; Beaver Hills, 2; Cypress Hills, 2; Cooking Lake, 2; Monte Hills, 3.

The forest rangers report the following as the causes of forest fires: locomotives, 21; campers, 17; settlers, 11; travellers, 8; threshing engines, 3; unknown, 13.

Men received \$2 a day for fighting fires. On the Riding Mountain reserve 65 men did in all 269 days work at \$538.15; on the Duck Mountain 18 men did 100 days work at \$200.95 and 4 teams, 5 days work at \$20. (Note—\$4 a day was paid for teams.) On the Turtle Mountain, 21 men did 34 days work at \$68; on the Spruce Woods, 4 men

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did 4 days work without pay; and on the Monte Hills reserve, 1 man did 10 days work for \$20. Where necessary, board was furnished to the fire-fighters by the department.

PROSECUTIONS.

Some settlers in the vicinity of the Moose Mountain reserve in Saskatchewan were in the spring of the year very careless of their fires in clearing land, and let them spread from their own land, endangering the forest reserve. For this carelessness the forest ranger prosecuted five men and obtained a conviction in each case. The total fines amounted to \$60 and costs. Chief Forest Ranger W. A. Davis prosecuted 7 men for letting fires run in the neighbourhood of the Riding Mountain reserve and secured 5 convictions; each fine was \$50 and costs.

BURNED GUARDS.

Along the boundaries of the reserves there are many sloughs covered with reeds, bushes and long grass. There are also higher grounds covered with a rank growth of hay and peavine. The forest rangers find that it is not a difficult matter to burn a guard through such a growth if it is done at the right time, that is, just as soon as the snow is off the fields, but before it is out of the woods. During the year just closed, 65 miles of such guards were made, 12 miles along the Riding Mountain, 40 miles along the Duck Mountain, 3 miles along the Beaver Hills and 10 miles along the Cooking Lake reserve. Such a guard has been found very beneficial in preventing fires from coming into the reserves from the prairie.

PLOUGHED GUARDS.

Ploughed guards to protect the reserves are being made wherever such measure is practicable. These are the best kind of guards when properly made. From experience the rangers have learned that they are best made a rod wide with two furrows two rods distant, running parallel with the guard and located on the side from which the fires usually come. To be effective the guard should be continuous. Spots too hard to plough on account of ground juniper, roots of trees or for any other reason should be spaded. Nineteen miles of ploughed guards were made on the Cypress Hills reserve. 8 miles on the Beaver Hills, 3 miles on the Riding Mountain and 6 miles of new guard on the Spruce Woods reserve. Besides this, a guard which had formerly been made 8 feet wide on the Spruce Woods reserve was ploughed 16 feet wide, and 25 miles, 8 feet wide. The cost was \$379, which gives \$7.82 as the cost per mile of guards, 16 feet wide.

FIRE ROADS.

During the year the rangers did excellent work in making roads along the boundaries of the reserves. The following table indicates the extent of this work:—

BOUNDARY ROADS MADE DURING THE YEAR ENDING MARCH 31, 1911.

Name of Reserve.	Miles in Length.	Width in Feet.	Cost.
			\$ cts.
Riding Mountain.....	22	8	752 00
" " 	15	10	642 75
" " 	32	16	1,603.75
Duck Mountain.....	36	8	925.00
" " 	12	16	737.50
Porcupine.....	24	6	200.00
Turtle Mountain	3	9	103.42
Total.....	144	Aver. 10' 34"	4,964.42

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This gives an average cost of \$34.47 per mile of road 10-34 feet wide. On the Riding Mountain and the Duck Mountain reserves the roads were cut through heavy timber. The trees were cut close to the ground and the logs, which were laid at the road side, were taken away on settlers' permits. The brush was gathered up and piled, and in the winter it was burned.

These roads are very serviceable to the rangers in moving about the reserves, in guarding them against fire, and in preventing trespass. They also allow the settlers easy means of getting out their timber.

Besides these boundary roads there were roads made in the interior of the reserves as follows:

In the Moose Mountain reserve the ranger made 6 miles of good road 20 feet wide on which there was 100 yards of grading done at a cost of \$24, and 7 culverts built for \$31.90. This will be a well travelled road and was made accordingly. The total cost was \$248.25.

In the Turtle Mountains a similar road 6 miles long on which 5 culverts were built and 7 repaired, cost \$291.75.

On the Beaver Hills reserve a road 15 miles long and 12 feet wide was brushed out at a cost of \$37.50; on the Porcupine, 26 miles 10 feet wide at \$196.86. A pack trail was also made in the Porcupine reserve, 28 miles long, and 4 feet wide at a cost of \$72.

THE SAWMILLS.

In my report of 1910 I recommended that small portable sawmills should be permitted to operate upon the forest reserves; and last fall the department made an attempt to carry this recommendation into effect. Certain tracts on the Riding Mountain reserve, where it was thought desirable to have mills operate, were examined, mapped, and described, by J. R. Dickson. The following form of contract was approved and tenders were called for:—

APPLICATION FOR CONTRACT FOR CUTTING TIMBER IN FOREST RESERVE ON SETTLERS' PERMITS.

To the Minister of the Interior,
Ottawa.

SIR,—I hereby tender for the contract to lumber upon settlers' permits only, on the tract of forest reserve known and described as:

1. I agree to cut lumber to satisfy settlers' permits at the following cash prices:—

(a) If the logs are delivered by the settler at the sawmill, hereinafter referred to as the mill, to be located or placed by me as specified in the paragraph numbered '8' of this tender:—

Spruce, pine, tamarack and balsam.	\$	per thousand feet.
Poplar.	\$	"
Other species.	\$	"

(b) If the settler requires me to get the logs from the woods:—

Spruce, pine, tamarack and balsam.	\$	per thousand feet.
Poplar.	\$	"
Other species.	\$	"
Slabs.	\$	"

2. In case I am required by any settler or settlers to get the logs from the woods to satisfy their respective permits, I agree to take only such trees as are designated by the forest officer in charge of the reserve wherein such trees are.

3. I agree to cut such trees, logs or timber into boards, scantling, plank, or square timber, as the settlers respectively require.

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4. I agree to dress such quantity of the lumber so cut by me, as the settlers respectively require, at the following cash prices:—

Surfacing	\$	per thousand feet.
Matching	"	"
Siding and shiplap	"	"

5. I agree to take out of the woods, and pile in a convenient place near the mill, all tops of trees taken to satisfy settlers' permits which are not suitable for lumber but are suitable for fence posts, and to furnish them to the settlers upon their respective permits, at the rate of \$ each.

6. I agree to cut no timber upon the said tract except to satisfy settlers' permits: that before I do his cutting I shall have received, in every case, from the settler his permit; that the permit shall be kept on file at my place of business for delivery to the forest officer in charge of the reserve in which such tract is situated upon that officer's request, and that immediately after his request for such permit has been made to me I shall deliver it to such officer.

7. I agree to cut the brush left in the woods so that it will lie flat on the ground, or to pile it in the woods, as the said forest officer directs.

8. I agree to locate the mill upon the site selected by the said forest officer, and to locate and construct the roads for logging and other purposes in connection with the milling operations, to the satisfaction of the said forest officer.

9. I agree to furnish the mill with boiler and engine of not less than twenty-five horse-power, and with proper equipment, including saw, gang-edger, trimmer, planer and matcher, and also that the carriage shall be well set, and all the machinery shall be kept in good repair.

10. I agree to avoid all unnecessary waste and destruction of timber, and to take and cut into lumber, from every tree, all portions suitable for such purpose, to the satisfaction of the forest officer.

11. I agree to cut the trees down with a saw and to leave no stumps more than eighteen inches high; and I also agree not to use any pine, spruce, tamarack or balsam for skids or head-blocks.

12. I agree to avoid all unnecessary damage to young growing trees or to trees to be left standing.

13. I agree, if called upon to do so, to make and plough, at my own expense, a fireguard fifteen feet wide completely around the mill, at a distance of not less than 1,000 feet; and not more than 1,500 feet from the smoke stack, the fireguard to be made under the direction of the said forest officer; no fires to be kindled for this purpose except under his immediate supervision.

14. I agree that before I commence operations in the woods I shall obtain from the land agent nearest to the tract in which such woods are situated, a permit for the timber which I shall require for the construction of the mill, stables and boarding camps, and I agree to pay for the same the regular settler's fees. I also agree that any timber, log size, used in the construction of the buildings shall be poplar only.

15. I agree to remove from the reserve, immediately after the completion of the contract based on this tender, all buildings which I shall have erected therein.

16. I agree that the forest officer may cause the work to be suspended, or that the Minister of the Interior may cause the said contract to be revoked, for violation of any of the foregoing conditions by me or my employees, and that I shall not have any claim for damages on account of such suspension or revocation.

17. I agree to make no assignment of this contract without permission in writing from the Minister of the Interior, or from one duly authorized in writing by him.

18. As a guarantee of the faithful performance of the conditions of this agreement I agree, upon being notified of the acceptance of this tender, to furnish forthwith a bond in the sum of one hundred dollars, which bond, in case of failure on my

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part to fulfil each and every of the foregoing conditions and requirements, shall become the property of the Department of the Interior as liquidated damages, and not as penalty.

I understand, and it is the true intent and meaning of this tender that the words 'I agree,' wherever they appear therein, mean that I.....agree with the Minister of the Interior, and his successors, for myself, my executors, administrators and assigns.

20. Unless an extension of time is allowed by the Minister of the Interior, I agree that the contract based on the terms and conditions of this tender shall expire on the first day of April, nineteen hundred and..... and I further agree to cease all milling operations on or before that date.

It is further understood and agreed between me, the said and the said Minister of the Interior, that upon the endorsement by him or by his deputy or some other person thereunto duly authorized by him in writing, upon this tender, of its acceptance, such tender and every condition therein contained shall be and become forthwith, without the execution of any further contract, the contract to be observed and fulfilled by me in the matter to which this tender relates.

Dated at this day of 191 .

.....
Signature.

Under the foregoing form of contract no mill was located on the reserve. The millmen refused to tender upon it for the following reason:—By the terms of the contract a millman placing his mill in the forest reserve is forbidden to cut any timber until he has received permits from the settlers. The settlers do not, as a rule, apply for permits before February. Consequently if a mill is placed in the reserve it must stand there idle till February. Even the logging cannot be done in advance of settlers' permits. Hence, there is no chance at all to do business at a profit.

A form of contract should be provided which will allow the millmen to know in advance how much timber they will be allowed to cut during the season. They would then be able to plan upon an economical basis. They could get the logs cut and placed on the skidways before the deep snow comes. With snow, they could get them promptly to the mill, and then the mill could run steadily till the lumber is cut out.

The department put into operation last year in Alberta a form of contract which, modified somewhat to suit local conditions would, I am convinced, be accepted by the millmen in the neighbourhood of any reserve. It reads as follows:—

APPLICATION FOR A PERMIT BERTH.

I, of desire to obtain a permit to cut timber on section, township, range, west of the meridian, under the provisions of the order in council of the 19th February, 1907, which timber will be manufactured at my sawmill now situated on section, township, range, west of the meridian.

Dated 19 .

.....
Signature.

.....
Post Office address.

AFFIDAVIT.

I,, the person named in the above application for a timber permit berth, make oath and say:

1. That I am not the holder of any permit berth or licensed timber berth.
2. I agree to have my sawmill in actual operation satisfactory to the Department of the Interior within three months of date of the permit herein applied for.

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3. I agree that the timber that may be cut under the authority of the permit herein applied for shall all be manufactured into lumber and other sawn products.

4. I agree that all such lumber and sawn products shall be disposed of for use in mines, and to settlers residing in the vicinity of the berth for use on their farms and that no portion thereof shall be disposed of to lumber merchants or dealers.

5. I agree to pay in advance of receiving the permit a rental at the rate of \$100 per square mile, and 20 per cent of the royalty dues on the timber covered by the permit.

6. I agree to render to the Crown Timber Agent, having jurisdiction in the matter, sworn returns monthly or at such periods as the Minister of the Interior may direct, accounting for the number of pieces of round timber cut upon the berth and manufactured into lumber and other sawn products and the quantity sold and on hand, and to pay dues thereon at the rate of 50 cents per thousand feet, board measure on the quantity sold.

7. I agree to take from the said tract all dead merchantable timber suitable for sawing into lumber or other products; or for cordwood, mine timber, or mine props, to the satisfaction of the forest officer.

8. I agree to take from the said tract only such green trees as are designated by the forest officer in charge of that portion of the reserve in which the said tract is situated.

9. I agree to cut the brush left in the woods so that it will lie flat on the ground, or to pile it in the woods, as the said forest officer directs.

10. I agree to furnish the mill with boiler and engine of not less than twenty-five horse power, and with proper equipment, including saw, edger, trimmer, planer and matcher, and also to have and keep the carriage well set, and all the machinery in good repair.

11. I agree to avoid all unnecessary waste and destruction of timber, and to take and cut into lumber, from every tree, all portions suitable for such purposes, to the satisfaction of the forest officer.

12. I agree to cut the trees down with a saw and to leave no stumps more than eighteen inches high; and that any merchantable timber used for skids or head-blocks will be manufactured into marketable products before the conclusion of operations.

13. I agree to avoid all unnecessary damage to young growing trees or to trees to be left standing.

14. Unless released from such obligation by written approval of the forest officer, I agree to make and plough at my own expense, a fireguard fifteen feet wide completely around the mill, at a distance of not less than 1,000 feet and not more than 1,500 feet from the smokestack, and to clear the space within such fireguard of inflammable material, subject to the approval of the forest officer.

15. I agree to remove from the reserve, immediately upon the expiration of the permit, all buildings which I shall have erected therein.

16. I agree to make no assignment of this contract without permission in writing from the Minister of the Interior.

17. I agree that the forest officer may cause the work to be suspended, or that the Minister of the Interior may cause the said permit to be revoked, for violation of any of the foregoing conditions by me, or my employees, and that I shall not have any claim for damages on account of such suspension or revocation.

18. I understand, and it is the true intent and meaning of this application that the words 'I agree' wherever they may appear therein, mean that I agree with the Minister of the Interior and his successors, for myself, my executors, administrators and assigns.

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19. Unless an extension of time is allowed by the Minister of the Interior, I agree that the permit based on the terms and conditions of the application shall expire on the first day of.....nineteen hundred and.....
I further agree to cease all milling operations on or before that date.

20. It is further understood and agreed between me, the said.....
and the said Minister of the Interior, that upon the endorsement by him, or by his deputy or some other person thereunto duly authorized by him in writing, upon this application of its acceptance, such application and every condition therein contained shall be and become forthwith, without the execution of any further contract to be observed and fulfilled by me in the matter to which this application relates. Dated at.....this.....day of.....19.....

Signature.

Two mills, one in the Cypress Hills, and one in the Rocky Mountain forest reserve, are already operating under this form of contract.

LICENSE BERTHS.

In my report last year there was included a list of all timber removed from license berths on forest reserves. I am again adding the list this year, so that by comparison, it will appear what berths are not being operated. While operating a berth the licensee pays an annual ground rent of five dollars per square mile, except for lands situated to the west of Yale, in the province of British Columbia, in which case the yearly ground rent is five cents per acre. When license berths are not operated the department increases the ground rent, hence the necessity for such comparison.

LICENSE BERTHS IN MANITOBA.

Reserve.	No. of Berths.	Area Sq. M.	Quantity Cut.	Royalty.
			Feet B.M.	\$ cts.
Duck Mountain.....	14	122.79	6,607,699	3,157.20
Riding Mountain.....	5	65.00	2,198,733	718.32
Lake Manitoba west.....	1	8.00		
Total.....	20	195.79	8,805,832	3,875.52

LICENSE BERTHS IN ALBERTA.

Reserve.	No. of Berths.	Area Sq. M.	Quantity Cut.	Royalty.
			Feet B.M.	\$ cts.
Jasper Park.....	6	56.89	90,390	122.35
Rocky Mountain Park.....	8	324.08	7,522,602	2,784.46
Total.....	14	380.97	7,612,992	2,906.81

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LICENSE BERTHS IN BRITISH COLUMBIA.

—	No. of Berths.	Area Sq. M.	Quantity Cut.	Royalty.
			Ft. B.M.	\$ cts.
Yoho Park.....	9	28.44	929,486	462 75
Glacier Park.....	8	35.13	2,983,357	1,507 51
Long Lake.....	1	25.00		
Donald.....	3	16.68		
Total.....	21	105.25	3,914,743	1,970 26

SUMMARY OF LICENSE BERTHS.

Province.	No. of Berths.	Area Sq. M.	Quantity Cut.	Royalty.
			Ft. B.M.	\$ cts.
Manitoba.....	20	195.79	8,805,832	3,875 52
Alberta.....	14	390.97	7,612,992	2,906 81
British Columbia.....	21	105.25	3,914,743	1,970 26
Total.....	55	692.01	20,333,567	8,752 59

SAWMILL PERMITS.

Permits to owners of mills to cut timber over a definitely described tract of land not exceeding one square mile in extent are granted on the reserves of Alberta on payment of a fee at the rate of \$100 per square mile for each permit, a permit being good for only one year from date of issue and renewable only once. The royalty dues are 50 cents per thousand feet on the timber cut, one-twentieth of which is payable when the permit is issued, and there is no ground rent. The permit gives exclusive right to the timber on the tract. The following is a list of sawmill permit berths:—

SAWMILL PERMITS.

Reserve.	No. of Permits.	Area Sq. M.	Log.	Mine Props.	Lumber.	Royalty paid.
			Lin. ft.	Lin. ft.	Ft. B.M.	\$ cts.
Rocky Mountain.....	505	$\frac{1}{2}$	8,706		241,865	8 75
".....	529	1	16,060	1,902	289,025	172 84
Cypress Hills.....	331	$\frac{1}{4}$	985		45,000	47 50
Total.....	1,365	$2\frac{1}{4}$	25,751	1,902	551,332	229 09

SETTLERS' PERMITS.

When a settler wishes to get timber from a forest reserve, he obtains a requisition from a forest ranger. To convenience the settlers, notices are posted in post offices and other public places stating that the ranger is to be at a given place at a given time. This arrangement is quite convenient for settlers. It has its defects,

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however. During the spring months, especially in January, February and March, the rangers find themselves so much occupied in taking requisitions that they have no time for work in the woods, and so after the permits are issued the cutting in the woods goes on without supervision. Moreover, trespassers learning from the posted notices the movements of the rangers, are able to trespass without detection. If it could be arranged that postmasters could take requisitions under advice from the rangers, the latter would be left free to see that the cutting proceeds according to the regulations. The following table shows the amount of requisition business the rangers have had during the year just closed:—

SETTLERS' PERMITS ISSUED BY MANITOBA AGENCIES.

Reserve.	No. of permits.	Lumber.	Logs.	Cord-wood.	Fence posts.	Fence rails.	Roof poles.	Receipts.
<i>Dauphin Agency.</i>		Ft. B.M.	Lineal ft.	Cords.	No.	No.	No.	\$ cts.
Riding Mountain.....	281	2,213,665	10,466	3,594	25,030	9,600	4,700	3,774 36
Duck Mountain.....	80	781,716	18,680	389	7,720	4,000	2,700	850 39
Manitoba West.....	4		10,260	145	2,900	2,000	400	17 75
Porcupine.....								
Total.....	365	3,290,912	38,806	4,128	35,650	15,600	7,800	4,642 50
<i>Brandon Agency.</i>								
Riding Mountain.....	11	55,000		110				162 75
Turtle Mountain.....	42			488			200	21 50
Spruce Woods.....	6		1,000	55				1 50
Moose Mountain.....	2			30				50
Total.....	61	55,000	1,000	683				186 25
Summary for Manitoba	426	3,255,912	39,806	4,811	35,650	15,600	8,000	4,642 50

SETTLERS' PERMITS ISSUED BY SASKATCHEWAN AGENCIES.

Reserve.	No. of permits.	Lumber.	Logs.	Cord-wood.	Fence posts.	Fence rails.	Roof poles.	Receipts.
<i>Regina Agency.</i>		Ft. B.M.	Lineal ft.	Cords.	No.	No.	No.	\$ cts.
Moose Mountain.....	32		3,000	364	1,200			27 00
<i>Esteran Agency.</i>								
Moose Mountain.....								
<i>Prince Albert Agency.</i>								
Porcupine No. 2.....								
The Pines.....	101	43,991	34,916	2,653	5,595	20,025	4,300	566 00
* <i>Yorkton Agency.</i>								
Beaver Hills.....								
Summary for Saskatchewan.....	133	43,991	37,916	3,017	6,795	20,025	4,300	593 00

* No data furnished.

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SETTLERS' PERMITS ISSUED BY ALBERTA AGENCIES.

Reserve.	No. of permits.	Lumber.	Logs.	Cordwood.	Fence posts.	Fence rails.	Roof poles.	Receipts.
		Bd. ft.	Lineal ft.	Cords.	No.	No.	No.	\$ cts.
Rocky Mountain.....	144	6,000	39,000	9,357	.....	.....	7,000	1,475 75
Cypress Hills.....	11	16,528	7,520	40	2,680	4,000	1,200	12 75
Cooking Lake.....	.....	.....	.....	.....	.....	.....	.....	.....
Summary for Alberta	155	22,528	46,520	9,397	2,680	4,000	8,200	1,488 50

GENERAL SUMMARY OF TIMBER CUT ON SETTLERS' PERMITS.

Reserves.	No. of permits.	Lumber.	Logs.	Cordwood	Fence Posts.	Fence Rails.	Roof Poles.	Receipts.
		Bd Ft.	Lineal Ft.	Cds.	No.	No.	No.	\$ cts.
Manitoba.....	426	3,255,912	39,806	4,811	35,650	15,600	7,800	4,642 50
Saskatchewan.....	133	43,991	37,916	3,017	6,795	20,025	4,300	593 00
Alberta.....	155	22,528	45,520	9,397	2,680	4,000	8,200	1,488 00
* British Columbia.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	714	3,322,431	124,242	17,225	45,125	39,625	20,300	6,723 50

* No Data from Agencies.

TOTAL OUTPUT OF TIMBER FROM DOMINION FOREST RESERVES.

—	Number	Lumber.	Logs.	Cordwood	Fence Posts.	Fence Rails.	Roof Poles.	Receipts.
		Ft. B.M.	Lineal Ft.	Cds.	No.	No.	No.	\$ cts.
License berths.....	55	20,333,567	.....	.....	.....	.....	.....	.....
Permit berths.....	14	.....	.....	1,991	.....	.....	.....	.....
Sawmill permits.....	.....	553,234	27,653	.....	.....	.....	.....	.....
Settlers' permits....	714	3,322,431	124,242	17,225	45,125	39,625	20,300	6,723 50
Total.....	783	24,209,232	151,896	19,216	45,125	39,625	20,300	6,723 50

During the year the rangers were vigorous in guarding the reserves against trespass. The chief trespassers are settlers and owners of small mills who try to get timber without permit and escape the dues, which are \$1.50 for poplar and \$3 for other species per thousand feet board measure. When timber is taken without permit, double dues are charged. This deters the average settler who wishes to use the timber on his own place, but does not deter settlers or millmen who take timber in trespass for commercial purposes. For instance, in some localities spruce logs sell from private lands at \$10 per thousand feet while timber taken in trespass from the reserves in the same localities bears only \$6. In such cases a fine of \$6 a thousand feet should be imposed and the timber should be confiscated. The following table indicates the number of seizures made during the year, and states the quantities and kinds of timber seized, with receipts therefrom:—

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TIMBER SEIZED.

Reserve.	Number of Seizures.	Lumber.	Logs.	Cordwood	Fence Poles.	Fence Rails.	Roof Poles.	Dues.
		Ft. B.M.	Lineal Ft.	Cds.	No.	No.	No.	\$ cts.
Riding Mountain...	17	60,934	1,702	114	900	.....	36	739.60
Duck Mountain...	1	402,000	.....	.....	.....	.....	.....	2,442.00
Manitoba West....	1	1,075	.....	.....	.....	.....	.....	6.45
The Pines.....	2	.....	.....	70	.....	.....	.....	72.50
Cooking Lake.....	1	.....	500	.....	.....	.....	.....	11.20
Total.....	21	464,009	2,202	184	900	.....	36	3,271.75

The work begun in 1908 and carried on in 1909, of marking the reserve boundaries with triangular iron stakes painted red, was continued in 1910. These are placed one mile apart. During the year, 166 stakes were set. These are very serviceable in reducing trespass.

HAY PERMITS.

Applications for permits for hay are received at any time after the first day of January and permits are granted at any time after the first day of April. It would seem as if applications should not be received until there is indication as to how much hay any area applied for is likely to produce. The first of May is early enough for all practical purposes to receive applications, and the first of June for the issue of permits.

Any actual settler residing in the vicinity of a forest reserve is granted hay for his own use up to forty tons on paying therefor at the rate of 10 cents a ton. Permits are granted to cut hay for barter or sale, or for any quantity over forty tons at the rate of 50 cents a ton.

In case two or more applications are received on or before the first day of April to cut hay on one parcel of land the officer in charge of the forest reserve has authority to arrange a division among the applicants. In case he cannot arrange a division of land to suit the several applicants he calls for tenders for the whole tract, and a permit is issued to the person offering the highest cash bonus over the regular rates. It would seem to be more practical to require an applicant to tender for only the quantity of hay he needs, the highest bidder having first allotment according to the estimated quantity of hay on the whole tract. With present procedure the highest bidder has opportunity to withhold hay that he does not need from other applicants.

The following table shows the number of permits issued for hay, the number of tons cut, and the revenue derived:—

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HAY PERMITS ISSUED.

Reserve.	No. of Permits.	Tons Cut.	Revenue Derived.
<i>Dauphin Agency.</i>			8 cts.
Riding Mountain.....	64	1,194	145 10
Duck Mountain.....	2	14	2 40
Manitoba West.....	2	22	3 20
<i>Brandon Agency.</i>			
Turtle Mountain.....	33	565	73 00
Spruce Woods.....	16	357	54 50
<i>Regina Agency.</i>			
Moose Mountain.....	20	527	62 70
<i>Prince Albert Agency.</i>			
The Pines	12	117	16 90
Prince Albert.....	2	7	1 70
<i>Edmonton Agency.</i>			
Cooking Lake.....	17	7,015	270 00
<i>Medicine Hat Agency.</i>			
Cypress Hills.....	188	7,400	888 00
<i>Calgary Agency.</i>			
Rocky Mountain	22	1,680	201 60
Total	378	18,893	1,719 10

GRAZING.

During the year the department has begun the matter of regulating grazing on the forest reserves. On Turtle Mountain reserve a large tract, consisting of ten sections of township 1, range 22, and all of township 1, range 21, west of the principal meridian, is being fenced, the posts being already on the ground. The fence will have a length of 5,361 rods. Settlers will be allowed to graze cattle and horses within the enclosure at a charge of 25 cents a month.

Large grazing problems present themselves on the Rocky Mountain forest reserve. Here fencing would probably be impracticable; but it seems to me that a small fee should be charged for stock permitted to graze on the reserve. Probably the following charges would be fair:—25 cents per head for cattle and horses for the summer grazing season, and 50 cents per head for the entire year; 6 cents per head for sheep for the summer grazing season, and 12 cents for the entire year. Only stock over 6 months old should be counted. Grazing areas should be set aside for sheep, and these should be located on the higher altitudes which are not much frequented by cattle and horses. Persons who allow stock to drift and graze upon the forest reserves should be considered as trespassers.

The number of head to be admitted to any area and the length of grazing period should be fixed by the forest officers.

Applicants for grazing permits should have preference as follows:—

1. Small nearby owners whose stock regularly graze upon the forest reserve and who are dependent upon its use.

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2. Larger nearby owners. These should be limited to a number which will not exclude more distant owners whose stock regularly graze, or are wintered on the reserve.

3. Owners of transient stock, that is, stock that has not been regularly grazed upon the reserve.

Milch or work animals owned by bona fide settlers to the number of 10 head should be allowed to graze without permit, and free of charge, as should also the few animals used by prospectors, campers and travellers.

REFORESTING.

During the summer of 1910, the forest rangers collected 42 bushels of spruce cones, 44 bushels of jackpine, 100 bushels of bullpine, 100 bushels of lodgepole pine, and 4 bushels of Douglas fir. These were sent to Indian Head, where during the winter the seed was extracted, some to be used in the nursery at that place, the rest to be used on the forest reserves. The year was not a seed year for spruce, the crop being almost a total failure. Out of the total number of cones of this species collected, only two pounds of seed were obtained.

Four seed beds were made on the Spruce Woods reserve and sewn with conifer seeds, and one with the seed of the green ash. The ash did well but owing to the seed having been taken by chipmunks the beds sown with seed of evergreens were a total failure. Two beds made on the Moose Mountain reserve, one of spruce and one of pine are this spring looking fine. Mrs. W. D. Reesor, of Graburn, Alberta, whose husband runs a large ranch on the Cypress Hills, made last summer two beds of jackpine, spruce and lodgepole pine. I examined those beds last fall. One was a decided success, the other had rather a scattered growth. The forest ranger, Mr. W. X. Wright, informs me that the seedlings are all alive this spring.

The forest rangers have made a praiseworthy attempt to do nursery work but they are too busily engaged otherwise to make a success of it. Besides, it requires technical knowledge and is therefore work for a forester.

The department has started a tree nursery on the Cooking Lake reserve in Alberta on a scale sufficiently large to employ the entire time of the forester who has been placed in charge, Mr. C. F. Brandt, who has had training and experience in such work in Thuringia, Germany.

This reserve lies 25 miles due east of Edmonton. It has large areas which are entirely denuded. The soil is a good sandy loam for evergreens. The district has an annual precipitation of 17.48 inches. As this region is covered with poplar bluffs the wind is much broken. The conditions are, therefore, considered favourable for reforestation. Frost is the chief thing to be feared.

The nursery site is on the shore of a beautiful lake and is well sheltered by a wood of tall poplar timber. During the coming summer twenty seed beds will be made and planted with white spruce, Norway spruce, jackpine, lodgepole pine, bullpine, tamarack and green ash.

FOREST SURVEYS.

During the summer of 1910 two forest survey parties operated on the eastern slope of the Rocky Mountains, running a line of survey intended to separate the farm land and ranch land on the east from the forest land on the west. This line has been submitted to the Minister of the Interior as a suitable eastern boundary for the Rocky Mountain forest reserve and with some slight alterations has his approval.

The leaders, G. H. Edgecombe and P. Z. Caverhill were assisted by seven students from the forestry schools of Toronto and Fredericton and two from western Canada College at Calgary. These students all did excellent work.

J. R. Dickson examined a large tract known as the Eagle Hills district in Saskatchewan with a view to having it set aside as a forest reserve. As the forest on the

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tract, if it can be called a forest, being rather a poor growth of poplar, is largely held by private parties, it was concluded that the tract was not suitable for such purpose.

GAME ON FOREST RESERVES.

The forest rangers are required by the department to report the number of game animals observed by them on the forest reserves. The following table is a summary of their reports:—

TABLE OF LARGE GAME.

Reserve.	Moose.	Elk.	Deer.	Bear.	Timber Wolves
Riding Mountain.....	265	203	51	1	0
Duck Mountain.....	50	60	8	1	1
Porcupine.....	10	10	2	5	6
Spruce Woods.....	1	0	0	1	0
Turtle Mountain.....	0	0	1	0	0
Beaver Hills.....	0	1	1	0	0
Cypress Hills.....	0	0	20	0	0
Moose Mountain.....	0	1	1	0	0
Cooking Lake.....	0	30	50	0	2
Monte Hills.....	0	0	2	0	0
Total reported.....	325	305	136	8	7

Besides the large game mentioned in the table the rangers observed numerous small game. Beaver are not numerous but are observed in the Riding Mountain, Duck Mountain and Porcupine reserves.

Prairie chicken are very numerous on all the reserves. Partridge are also in evidence but cannot be said to be numerous. Duck fly up from the lakes like swarms of bees from their hives. Geese are reported as being very plentiful on the Riding Mountain and Beaver Hills reserves.

It will be observed that the game reported from the Saskatchewan reserves are few. The reserves there are not large and they are only four in number. Game animals were formerly abundant upon them but they were hunted so hard that they were very likely to become extinct. The department set aside the Moose Mountain as a game reserve and the Saskatchewan government in 1910 prohibited the taking of game on any of the forest reserves. It is therefore hoped that the reports of the rangers as the years go by will show a gradual increase in the number of game.

SUMMER RESORTS.

During the year a summer resort of 115 lots was laid off on the shore of Fish lake in the Moose Mountain reserve, and one of 43 lots on Arbor island in Lake Max in the Turtle Mountains.

FORESTRY LECTURES.

For three years the inspector of forest reserves has devoted some time each year to lecturing upon forestry subjects in the towns and cities of Canada. During the year just closed two lectures were presented, one entitled 'The Forests of Canada' and the other 'The Forests of Europe.' Each lecture was illustrated with one hundred lantern slides, coloured as nearly true to life as it was possible to have them made.

The following places were visited:—

Lachute, 1 lecture; Ottawa, 2; Brockville, 1; Toronto, 2; Stratford, 1; London, 1; Strathroy, 1; Norwich, 1; Lindsay, 1; Barrie, 1; Collingwood, 1; Huntsville, 1;

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North Bay, 1; Fort William, 1; Winnipeg, 2; Brandon, 2; Souris, 1; Carlyle, 1; Arcola, 1; Melville, 1; Saskatoon, 2; Battleford, 1; Calgary, 3; High River, 1; Macleod, 1; Taber, 1; Vancouver, 3.

The lectures were presented before boards of trade, Canadian clubs, horticultural societies, agricultural associations, colleges and churches. In the prairie provinces about fifteen minutes time was given at each meeting to a discussion of tree planting on city streets. At nearly every place visited the audience room was crowded with people interested to learn about the forestry work being done by the forestry branch.

RANGERS' MEETINGS.

At the close of each fiscal year for three years a convention of forest rangers has been held to discuss the work of the past year and to plan for the ensuing year. This spring, the meeting was held at Saskatoon, and the work of the convention occupied two days. All the rangers of Manitoba and Saskatchewan were present. On each evening, the inspector of forest reserves lectured, on the first evening in the Opera House and on the second in St. John's Hall, where the convention was held. These audience rooms were placed at the disposal of the rangers free of charge by the Board of Trade.

The following resolutions passed at the meeting to be submitted to the superintendent of forestry, will give an idea of the nature of the discussions:—

Resolutions.

1. Certain postmasters designated by the forest rangers should be given authority to take requisitions for timber permits.
2. No lumber permit should issue between March 15 and May 15.
3. Timber taken from the reserve in trespass should bear double dues. If taken for commercial purposes the timber should also be confiscated.
4. Hay permits should issue upon the reserves upon application made through forest rangers only or upon their approval.
5. Applications for hay permits should be received by the land agent on or after the first day of May in each year, and permits should be issued on or after the first day of June in each year.
6. In cases requiring that tenders should be received for hay, the tenders should be made for not more than the quantity of hay stated in the application.
7. Certain settlers living near the reserve should be appointed as fire wardens, whose duty it should be when fire occurs to notify the forest ranger and get out men enough to put the fire under control. For this service, the warden should receive \$2.50 per day only for the time during which he is employed in extinguishing the fire, ordinary men to receive \$2 a day.

Respectfully submitted,

A. KNECHTEL,

Inspector of Forest Reserves.

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No. 4.

REPORT OF J. R. DICKSON.

DEPARTMENT OF THE INTERIOR, FORESTRY BRANCH

DAUPHIN, MANITOBA, April 1, 1911.

R. H. CAMPBELL, Esq.,

Superintendent of Forestry.

Ottawa.

SIR,—I beg to submit the following report of my work during the departmental year beginning April 1, 1910:—

Acting under the inspector's instructions I was engaged during April in locating and examining several tracts in the Riding Mountain reserve, suitable for small saw-mill sites. Separate reports on these, with maps and recommendations, were duly rendered. Ranger A. McLeod assisted me with the first four areas, situated on the eastern slope of the mountain, and Ranger W. Middleton with the last one, just north of Lake Audy, township 20, range 20.

The local situation is this: the supply of desirable spruce timber in this reserve within easy reach of the surrounding settlers having now been largely exhausted, the necessity arises of utilizing the more interior stands. The green logs cannot be teamed with economy more than six miles, so that it would seem advisable, under careful logging rules and such other regulations as are found necessary to guard the forest, to admit a number of small mills. In my opinion the present fixed area method of controlling the work of these mills might advantageously be changed. The timber is not in large quantities but in small scattered bluffs, and the present hard and fast square mile rule is not elastic enough to be practicable. Dependence should be placed rather upon volume control than upon area. All interests concerned have nothing to lose and much to gain by this simple change.

Given proper supervision, I see no reason why the entry of small mills should not benefit both the settler and the forest. To the settler it opens up a further supply of cheap lumber by making it possible to draw upon the now inaccessible material the removal of which is highly desirable. Constant and effective supervision of all the logging operations will also be possible, which is the first important step in forest management and improvement.

In April, also, I attended the annual rauger convention at Brandon, where a number of the more pressing local problems were considered and discussed. Such meetings are most helpful and valuable to all concerned.

HUDSON BAY RAILWAY SURVEY.

On May 1, you instructed me to meet the inspector at Winnipeg and complete arrangements for taking charge of an exploration party along the proposed Hudson bay route, north of The Pas in Keewatin.

On May 15, I left for The Pas with Messrs. D. R. Cameron, J. A. Doucet and J. L. Bremner as assistants. There I secured four Indian canoe-men and a cook, and upon the arrival of our supplies left on May 26 for Moose lake and the north. On Metishto portage two of my men fell sick and were forced to return. This shortage of men, together with delays caused by storms on Moose lake, and by the Nine-mile portage, lost us considerable time.

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For the first month, that is, until Setting lake was reached we passed through a muskeg country. Except for a varying percentage of rock outcrop, usually in the form of low ridges covered by stunted jackpine, this great muskeg extends northeast along the whole course of the Metishto river and appears, in fact, to blanket almost the entire watershed in this region, between the Saskatchewan and Grass river systems.

From Setting lake to Cross lake by way of Paint, Wintering, Landing and Sipiwesk lakes, we traversed some two thousand square miles of the so-called clay belt, which contains upon the whole from fifty to seventy-five per cent of arable land, and probably will have a good agricultural future.

OBJECTS SOUGHT.

In accordance with instructions received, the central object of the party was to make a rapid reconnaissance survey of the country adjacent to the proposed route of the Hudson Bay railway, between The Pas and Split lake, the work of such a survey being in this case to locate, estimate and map in the areas of commercially valuable timber that could be made use of in the work of constructing the railway. Any such timber within eight miles of the line was classed as available, and beyond this distance, wherever waterways gave access, timber under eight inches in diameter at breast height was considered not merchantable, as being too small for industrial use. All areas not timbered commercially, that is, carrying only young growth of no marketable value, were passed over with a general description of the existing growth as to species, size and quality. Areas of greater or less agricultural value were mapped in when possible, and a study made of their local flora, natural products, and probably cropping possibilities.

A second object, considered almost as important as the above, was that of fire ranging and patrol work. A constant lookout for forest fires was maintained, and the various travellers met with were urged to acquire the habit of extinguishing their camp fires. In addition, durable fire notices, written in English, Cree and Chipewyan, were posted at trading posts, portages and camping places along our route.

METHODS.

All along the chain of watercourses and lakes which we followed, inspection lines by compass were run back into the adjoining country at three to six-mile intervals, and tied in to the railroad survey to locate them upon our map. The men inspecting the strips worked singly, and were able to travel from four to eight miles from the line and return each day. Field glasses were carried, and by climbing tall trees at advantageous points it was possible to examine in a sufficiently thorough way the surface of the country and nature of the tree growth. That region is specially favourable for rapid and accurate and descriptive work, being so uniform in character. The men while on field work also took notes on the forest types, drainage, soil conditions and reproduction.

GENERAL DESCRIPTION OF THE COUNTRY.

Topography—Drainage.—The surface of the country is undulating to nearly level, almost monotonously so. However, away from the railway line in places there are areas of rough rolling granite. Wherever exposed, the bedrock has been rounded, polished, worn down nearly to a general level by prolonged weathering, and the subsequent erosion of the ice age. The divides between watercourses are low and poorly defined. The general exposure north of Moose lake is toward the northeast. This slope is very slight, only twenty inches per running mile. Furthermore, this fall is not uniform; one half occurs in the form of three rocky escarpments,

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each of which produces cataracts on rivers flowing into the Hudson bay. The above facts clearly explain the presence of the vast muskegs and sluggish drainage which obtain in that country. The whole region is intersected by a network of lakes and streams, large and small, at least ten per cent of the gross surface of the country being water.

ROCKS AND SOILS.

The bedrock for one hundred miles northeast of The Pas is limestone, largely dolomite, and it frequently obtrudes through the muskegs or shallow soil which blankets it. These outcrops form low, narrow, flattened ridges, rising just above the general level of the muskegs and nearly always running northeast and southwest.

In the area of gneiss and granite farther north, the whole future, so far as agriculture or forestry is concerned, depends upon the general depth of the boulder clay. From the mere fact that it is a 'drift' deposit, this depth constantly varies. There are large areas of almost pure rock outcrop and muskeg of little value, even for timber production, but in general the soil, which is almost uniformly a very tenacious boulder clay, but nearly free of boulders, averages from four to twelve feet in depth; deep enough, therefore, for cultivation.

It must be understood that no hard and fast boundary lines can be laid down as showing the confines of this clay belt. The change is often so gradual, and so many as yet unknown factors enter, such as soil depth and the chance of drainage, that any estimate of the bounds, area and average arable content of this belt could, with our present very limited knowledge, be given only in general terms.

NATURAL RESOURCES.

Minerals.—According to our observations the region we covered is not well supplied with economic minerals. The dolomite limestone north of The Pas would doubtless furnish a good quality of building stone for use on the prairies. Farther north is the Laurentian country of granite, gneiss and schists. Here traces of copper and iron ore were seen at two points, and possibly further prospecting might discover valuable deposits.

Fisheries.—The deeper lakes all abound in white fish of the finest size and quality. Sturgeon also are abundant in Split and Sipiwesk lakes, while pickerel, pike and suckers are caught everywhere. Only the railway is needed to furnish a market for this industry.

Game and Furs.—Beaver are scarce, but the other fur bearers are still fairly numerous. Wolves, moose and caribou are plentiful. More stringent game laws will shortly be needed when the country is opened up to white hunters. Under proper regulation this region should furnish a large permanent revenue from hunting and trapping.

Timber.—In the region we traversed only five species, viz., spruce, poplar, tamarack, birch and jackpine, are of any possible commercial value, and of these only the spruce is large enough for sawmill purposes or railway ties. Poplar, birch and pine are too short, spindly, limby and crooked for any use, save fuel or pulpwood, and the tamarack has been killed by insect attack. We found only a remnant of green tamarack large enough for ties on an island in Sipiwesk lake. Black spruce is the predominating species in all that region, but only on occasional well drained spots does it exceed four to eight inches in diameter. The jackpine is similarly useless for tie material.

The white spruce, therefore, is the only species large enough to furnish construction timber, saw logs or ties, and the supply is very limited. In the first place this species occurs only along well drained river and lake margins, and in the second the fires of the past hundred years have destroyed nearly all the old stand.

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To sum up, less than half of one per cent of the area we surveyed now carries merchantable timber, a fringe along parts of the lower Metishto and upper Minago rivers, and on a few islands and points in the larger lakes. There is probably enough timber available to build the rough construction work of the Hudson bay railroad. During the summer we found, all told, on Crown land, some 360,000 ties and 9,500,000 feet lumber B.M.

Pulpwood.—Just at present the timber is too young and small upon the whole to be cut at a profit for pulpwood, but in the absence of fires for twenty years the now eighty-year old stands of four to eight inch timber can be profitably cut for this purpose, and it is probable that within the next quarter of a century one or more mills will be established along the Nelson river.

Fuel.—From the mere size of the country and density of the oncoming stands of young timber, the supply of firewood is enormous. Being so remote from settlement, however, it has no present commercial value.

Piles.—As a result of past destruction by the saw fly and bark beetles, almost no green tamarack large enough for piling now remains in the whole region. Unless by importation, the only local choice left is between dead tamarack and the largest black spruce.

Young Growth.—As a general rule, to which, however, there are endless local exceptions and variations, the young growth is approximately either forty or eighty years of age, the former being now one to four inches in diameter, and the latter four to eight inches, but none yet large enough for ties. Scattered trees from older stands occur in this second growth, but not in sufficient number to repay the cost of lumbering. In general, because of the dense stands and poor drainage, the growth rate is very slow. It varies directly with the drainage conditions.

Forest Enemies.—Fire, insects and wind in the north country are all very destructive agents, and all inter-related. The fire loss and danger are appalling. Within the past century, two great general fires along with numerous intermediate ones have reached every part of the region we traversed. These great periodic fires accompany each cycle of dry seasons. Where the soil is thin the fire is disastrous, the root-zone being destroyed.

The bark beetles have not only completed the destruction of the large tamarack, but are everywhere at work to-day killing off the scattered patches of mature spruce which have escaped past fires. These beetles work in colonies, destroying the trees, and the moment they create an opening in the close growing stand, each following wind storm enlarges it. Then a fire inevitably follows and the destruction is complete.

Climate and Natural Products.—The climate and the soil conditions are the two basic factors which largely determine the agricultural possibilities of a region, and a study of the existing flora answers many questions as to the climate and soil. On well drained spots as far north as Split lake, the flora is almost identical with that in the Riding mountains of Manitoba. Yet, the country just south and east of Split lake is four hundred miles due north of the Riding mountain reserve. These localities, therefore, must lie under the same summer isotherm, or nearly so, and the total heat received during the growing season will be nearly the same in each district.

Two other factors which hasten vegetation in this northern clay belt are first the low elevation, only 500 to 700 feet above the sea, and secondly, the large proportion of sunlight during the growing season, because of the very long day. No doubt, also, the large relative area of water surface has an important influence in preventing late spring and early fall frosts. At Cross lake post in the summer of 1910, no damaging frost occurred during a period of ninety days. To me the climate seemed most favourable for farming operations; showers fell every week and the growth to maturity of the native vegetation was amazingly rapid.

Barley and oats mature there in fifty days, and this rule of early maturity is general, applying also to fruits, roots and vegetables; so that there would appear to be little

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difficulty from a climatic standpoint in growing all the hardier products of the temperate zone. The average temperature of the growing season is about 60° F. The size, yield and quality of the many species of wild fruits enjoyed during the last week of July in the vicinity of Split lake were remarkable. Vegetables flourish. At Cross lake post we ate potatoes weighing 1½ lbs. each, dug on the last day of August.

As the timber is cleared off and the land broken up the growing season will become longer and more dependable and the insect pest will abate or disappear. The winters are enjoyable and the proximity to Hudson bay should mean a good market and cheap supplies. A colony of pioneer settlers from northern Europe should, if possible, be induced to locate in this clay belt upon completion of the Hudson Bay road.

The soil is similar to that around Cochrane, New Ontario, which is yielding large returns under right treatment. Better drainage is the first and great requisite. However secured, aeration is necessary to change the present cold, sour, impervious soil to a warm, porous, friable one of the right texture, full of bacterial life, available plant food and resulting fertility.

THE FIRE PROTECTION PROBLEM.

The Indians, the constant winds, the severe electrical storms, the enormous area of the region, the lack of any means of rapid communication, and the highly inflammable nature of the dense stands of small coniferous timber which prevail, combine to make the problem a very difficult one.

Summer travel through the region is practically all confined to the several main canoe routes, and it may be assumed that all the local forest fires caused by the agency of man start from unextinguished camp fires along these water highways. Against lightning, of course, no protection is possible, nor can the country remote from the waterways be patrolled. Probably all that can be done at present is to organize a more or less complete patrol of the main travelled canoe and transport routes. The construction and operation of the railway to Hudson bay will add a new element of danger from which the forest should be adequately safeguarded.

SURVEY IN EAGLE AND BEAR HILLS, SASKATCHEWAN.

Acting under the inspector's instructions I went next, in early October, to study and report on existing conditions in the Eagle and Bear hills, which lie some fifty miles west of Saskatoon; and, further, in case conditions pointed to the need of it, to project a tentative boundary for one or more forest reserves in that district. This survey, together with some office work at Dauphin, occupied the month of October, and reports, maps and recommendations covering same were then forwarded to the inspector at Brandon.

EAGLE HILLS CONDITIONS.

This range is located in townships 35 and 40, inclusive, of range 13, west of the third meridian, with a fringe in the adjoining ranges; these hills are rough, rolling and vary between 1,800 and 2,400 feet above sea level. There is no bedrock within two hundred feet, but fifty to sixty per cent of the surface is more or less thickly sown with granite boulders, which fact practically forbids cultivation. The soil is in general a light, sandy loam over a gravelly loam subsoil. Being a glacial deposit, however, it varies in places almost to a stiff boulder clay.

Timber.—Twenty-six years ago there was not less than one hundred and fifty square miles of thrifty half-grown poplar in the north end of these hills: to-day only a badly culled remnant of some two square miles remains. Two great general fires, in addition to many smaller ones, destroyed the rest.

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Over these brûlés a many-aged forest of young poplar has sprung up, as conditioned by the fires, but none of it is even of fuel value yet. This scrubby growth, mixed with willow, now covers about one hundred and ten square miles of area outside the Indian reserves. All told, there is perhaps 25,000 cords of fuel wood, which is the sole source of local supply for fifty to one hundred miles in any direction.

Within easy reach and dependent upon it are the famous Tramping lake and Cut-knife districts, now rapidly being settled; likewise dependent is that well settled prairie along the main line of the Canadian Northern railway from Warman to Battleford, and also the vast plains west and southwest of Saskatoon, in round numbers ten thousand square miles of country, which looks and must look to the Eagle Hills for timber.

Game.—If this area of woodland were protected from fire and extended over the entire hills it would form an urgently needed game haven. The fires of recent years have driven out the elk, but numbers of mule deer and some antelope still find shelter in the scrub. This is the only band of deer in all that part of Saskatchewan, and only the immediate creation of a reserve will save them from extinction. Moreover, I found chicken and grouse abundant, and the many small lakes literally covered with ducks and geese.

Alienations.—A sprinkling of homesteaders have come in within the past two years, most of them during 1910, but practically no land has yet been broken nor permanent improvements effected.

Climate and Water Supply.—The beneficial effect of this belt of scrub on the local climate and water supply is remarkable; in fact, in itself is a sufficient argument for a permanent forest reserve on these hills. The claim of local settlers that 'the rain follows the scrub' was well borne out this dry year (1910), by their large yields as compared with the crop failure seen fifty miles south. Then, also as a summer resort where picnic parties could escape from the heat and monotony of the plains and refresh themselves in the cool enjoyment of the forest, such a reserve would do much to make life more pleasant and attractive in all the country round. Finally, every resident spoken to was strongly in favour of creating such a reserve and urged that the matter be undertaken at once.

Recommendations.—I located a boundary for two forest reserves on these Eagle hills, of 284 and 40 square miles respectively, and strongly recommended that they be forthwith set aside, rangers appointed, effective fireguards ploughed where necessary, and the remaining timber used without waste, under careful supervision.

The Bear Hills.—In the Bear hills, a bleak, boulder-strewn range, just south of the Eagle hills, conditions are quite similar. On some twenty-five square miles there is a scrubby growth of willow and poplar, all under two inches diameter, but the rest of these hills are bare. Here provisional boundaries were run for three small reserves, to include in all 121 square miles. This land is hilly, stony, sandy, or all combined, and, upon the whole, more suitable for forestry than agriculture. It should be reserved and handled as grazing land until such time as the afforestation work can be proceeded with. Several species of forest trees would flourish there if once started and protected from the inroads of prairie fires.

Locating Sawmill Sites in the Riding Mountains.—The first half of November was spent in the Riding mountains just south of Gilbert Plains, locating suitable sites for two sawmills inside the reserve there. Ranger Robertson assisted me with the first one, a poplar proposition on Ranch creek in 10-23-22 W. principal meridian. An excellent location was obtained here, with easy grades for logs and lumber, and having five to ten years' cut of poplar in sight.

White spruce in merchantable quantity is getting scarce now west of the Strathelair road, and it took some exploring to locate a good spruce site. Finally a bluff containing some 1,200,000 B.M. was found in 16-22-21 W. principal meridian, also a suitable spot for a mill close by, on southwest fork of the Vermilion river.

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Reports and maps covering above work were sent the inspector, who instructed me to continue this mill site location work north of Erickson and Elphinstone on the south side of the reserve. Proceeding to Erickson, a good spruce location was obtained on the Whirlpool river in township 18, range 19, where a square mile was cruised, containing 900,000 feet B.M.

In the Lake Audy locality, however, only some 150,000 feet of much scattered timber could be found, not enough for a mill, and it would seem that the only remaining area of commercially valuable spruce on the south slope of the reserve is that lying just north of Clear lake.

The first half of December was spent at office work in Dauphin, and the rest of the month on annual holiday leave. During January and first half of February, I was working in Ottawa under your instructions, completing a report and map of the work done by my party last summer, north of The Pas.

The remainder of the fiscal year was spent partly in the Dauphin office obtaining data for the annual report of the department, and partly in driving with Supervisor McLeod into various parts of the Riding Mountain reserve, to study on the ground the existing forest conditions and the necessary steps to more efficient protection and management.

Up to the present time the products of the reserve have been freely used to secure the immediate convenience and welfare of the inflowing settlers, and this is necessarily the case in any newly opened country, and most desirable; only, let us no longer allow removal of the mature timber in a haphazard way, but direct it with a view to ensuring the future welfare and permanence of the forest. Cutting operations can be systematized so as to secure a thrifty natural reproduction.

A plan for introducing such a system of silviculture in spruce and poplar on this Riding Mountain reserve is now being worked out under direction of the supervisor, and will shortly be submitted for your consideration.

Respectfully submitted,

J. R. DICKSON,

Assistant Inspector.

No. 5.

REPORT OF G. H. EDGECOMBE.

DEPARTMENT OF THE INTERIOR, FORESTRY BRANCH,
OTTAWA, December 27, 1910.

R. H. CAMPBELL, Esq.,
Superintendent of Forestry,
Ottawa.

SIR,—I beg to submit the following report on the work which I have carried on under your instructions during the past summer.

NATURE OF THE WORK.

The work, which was to determine the southern portion of a line which should be fixed as the eastern boundary of a forest reserve to be established on the eastern

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slope of the Rocky Mountains, was of the nature of a reconnaissance survey and included the mapping of the forest type and physical features. In following instructions to exclude all agricultural land, a line at about 4,100 feet altitude was found to divide the agricultural from the non-agricultural and true woodland. However, on account of local conditions a line at an elevation of 4,800 feet and over was often followed.

DISTRICT TRAVERSED.

The district traversed was from the Elbow river, in township 22, range 4, west of the 5th meridian, southward to the international boundary in township 1, range 27, west of the 4th meridian.

TIME IN SURVEYING DISTRICT.

The party, which was at first composed of six members, but in August was increased to eight, started work June 10. A loss of three weeks time was caused in July and August by forest fires. On account of this delay and to hasten the work, two members of the party, H. C. Belyea and C. H. Morse, spent most of September in collecting data along the Crowsnest branch of the Canadian Pacific railway, while the rest of the party continued the work southward. The international boundary was reached October 10, when the party broke up.

THE BOUNDARY LAID DOWN BY ORDER IN COUNCIL, MAY, 1910.

In May, 1910, an order in council established a line as the eastern boundary of a reserve on the above slope. Upon examination it was found that for a large part of this southern district this boundary would not fulfill the object of the reserve, which is to supply timber and wood to the prairies and protection to the watershed. It includes only an Alpine country, a large percentage of which is above the tree limit, and the remainder inaccessible as regards timber supply for years to come. Large portions of it have been burned over, leaving bare eroded hillsides which were formerly covered by a thin soil and coniferous wood growth.

Again, eastward of the line established by order in council extended a district (in the northern part as far east as fifteen miles) the topography, altitude, nature of the soil and wood growth of which would warrant reservation. This country, on account of its light soil and elevation, is unfit for agricultural settlement, and is strictly woodland with its valleys of open grazing. It is in this district that, on account of local demand and transportation, wood will be first used in preference to that in the interior country, and by the present methods of lumbering will become deteriorated as regards future supply and protection to the waterflow.

TOPOGRAPHY.

The topography of the country examined varies greatly, from a foothill region in the north to the Rocky Mountains proper, which change abruptly into the rolling prairie in the south.

North of the Oldman river the foothills extend east of the Rocky Mountains proper from six to eighteen miles; long, bare ridges, such for instance as the Fisher, Highwood and Livingstone ranges, intervene and reach an altitude from 6,500 to 7,500 feet. Going southward these ranges and hills gradually decrease in altitude, merging into the prairie; and the mountains, which reach in their eastern summits an altitude of 6,800 feet and over, break abruptly into it. In the very south the Wilson range extends eastward for about nine miles along the international boundary. Just south of the boundary it reaches an elevation of 9,000 feet, but on this side the elevation ranges from 5,000 to 6,500 feet.

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The trend which the eastern edge of the foothills takes is the same as that of the Rocky Mountains; that is, from the international boundary northward to the south fork of the Oldman river, the trend is N. 35° W., from this point north to the Highwood river it is N. 12° W., and thence goes north in a direction of N. 35° W.

The hills reach an altitude above their valleys of 400 to 1,500 feet. West of the proposed line the valleys become more deep and the slopes which east of this line are moderate become very steep.

The rivers, the Elbow, the Highwood, the Oldman, the Waterton and the Belly, cut at right angles to the ridges and have their sources well up in the mountains, while the creeks find their sources in the first range of hills. The creeks are numerous and supply a large amount of water to the prairies. Last summer, both the rivers and the creeks were fordable at all times, but they are subject to floods, especially in the month of June, which result from the sudden melting of the snow on the mountains and ranges above timber lines.

All the above named rivers with the tributary creeks join the South Saskatchewan river, and are thus a large factor in the water supply of the prairies hundreds of miles away. The maintenance of an equable waterflow is thus desirable, and the importance of the protection to the watershed is evident.

ROCK AND SOIL.

The geological formation of the foot-hills is mainly cretaceous, with infoldings of shale and coal, while that of the mountains is of the older paleozoic rock.

Above timber line, which can be placed at an altitude of about 6,100 feet, the hill-tops and mountains become bare, exposing sandstone and cherty and silicious limestone. Most of the hills at lower elevation have stony outcrops.

In the valleys the soil is a sandy loam with a subsoil of gravel. It is deep, but light. As the elevation increases the soil becomes thinner, verging into gravelly and stony, the depth of soil varying with the moisture and slope.

TREE GROWTH.

The principal trees found on the eastern slope are:—

Picea Engelmanni (Engelm.) Engelmann spruce.

Picea Canadensis (Mill B.S.P.) White spruce.

Pseudotsuga mucronata (Sudw.) Douglas fir.

Pinus Murrayana (Murray.) Lodgepole pine.

Populus balsamifera (Linn.) Balsam poplar.

Populus acuminata (Rudb.) Cottonwood.

Populus deltoides (Marsh).

Larix lyalli (Parl.) Lyall larch.

The Engelmann spruce is one of the chief timber trees. It is found on the northern exposures and along river bottoms, where the loam is fresh to moist. The maximum diameter noticed was 42 inches, breast high, while the height was 130 feet. Young spruce seedlings require shade, and thus the more light-requiring lodgepole pine and poplar are apt to obtain possession of the land, forming a temporary type. Thus along the slope are large areas, where fires have destroyed the former spruce forest, which is now replaced by one of lodgepole pine and poplar.

Like Engelmann spruce the white spruce was chiefly associated with northern exposures, and also on stony slopes. Of the merchantable spruce, however, Engelmann spruce appeared to be the chief timber tree, but the white in favourable conditions produces excellent saw material.

Black spruce comes in on the edge of muskegs and on Warren stony slopes. Southward it gradually disappears.

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Douglas spruce or red fir was found mostly on southern exposures and only on the lower slopes. It occurs in small groves in the open, likely caused by the protection of its thick bark, while other species have been killed by fire. The quality is variable. In seedling qualities it appears very much like the spruce. The diameter ranges to 34 inches and the height to 90 feet.

Lodgepole pine, like spruce, was found mostly on northern exposures, but also on the dry sandy soils. The seed is especially adapted for seeding up fire burnt areas; and on the eastern slope where repeated fires have traversed, lodgepole pine predominates, and thus will become in the future the principal commercial tree. It is now much used for mine props. It rarely exceeds 18 inches in diameter, and in height 85 feet. In close stands it grows very tall and straight, with little taper and free from branches, thus producing excellent poles.

The poplars apparently come in anywhere from rich river bottoms to thin stony soils of the upper slopes, but they are favoured by the southern exposures. On the river bottoms and lower slopes, the balsam poplar becomes a merchantable size from 8 to 28 inches in diameter, and up to 18 inches is apparently sound. The poplars are, however, mostly small in size, forming a fire or temporary type.

The larch was noticed only near the international boundary, where it was found on the upper rocky exposures of Table mountain at an elevation of over 5,500 feet. It was of a stunted, scrubby growth.

The forest type on the eastern slope is a temporary type, caused by the repeated fires. Merchantable spruce occurs in a comparatively few small blocks, which are mostly under license. Lodgepole pine from 5 to 40 years old covers over 40 per cent of the area.

The following in percentages of area indicates the condition of the wood-growth on about 800 square miles along the proposed boundary:—

Timber..	9 per cent.
Spruce and pine poles..	31 "
Pine and poplar..	26 "
Poplar..	10 "
Open grazing..	14 "
Bare rock..	10 "

From stem analyses, it was found that lodgepole pine of thirty years' growth attains a diameter size of 5 inches, while in that of sixty years' growth the diameter breast high becomes about 9 inches. In spruce and red fir the diameter growth was found to average, for the former, about 12 inches in ninety years, and in the latter 12 inches in one hundred and ten years.

GRAZING.

In locating the proposed line of the forest reserve, where practicable, open grazing valleys were excluded. These valleys often extend westward some miles along the river valleys, which are narrow, while the hills are covered with pine and poplar. Bunch grass, wild pea and a variety of annuals form the chief herbage.

If cattle are not allowed to graze on these areas too early in the spring, nor in too large numbers, there is no reason to believe that they would damage the wood growth above the seedling stage, for they prefer grass when there is plenty of it. The damage to young seedlings would result from tramping down the young plants. From such areas, however, the cattle could be excluded.

In fact the grazing should be a great benefit in freeing the ground of the dry grass, and thus lessening the fire danger, while also, by their well trodden trails, the fire is hampered.

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SQUATTERS.

Within the proposed boundary several squatters are located well up in the foothills. They have settled on the land with the hope that the country will be surveyed and that they can then homestead. They are located on narrow river flats, which, when divided by the present system of survey, will be incapable of maintaining them, for the elevation of these places would prohibit the raising of grain and the raising of cattle would require the whole area.

While it is not desirable to have homesteaders on a reserve, the grazing flats might be leased to the present occupants, during good behaviour and as long as they abide by the regulations. From their location on much used trails and with their knowledge of the country they would be very useful as fire rangers.

HOMESTEADERS.

Homesteaders are located from one to eight miles east of the line, and are mostly employed in cattle and horse raising and in working the coal mines.

Those in the neighbourhood of the proposed boundary claim that it is impossible to ripen grain and they grow only a small quantity of green fodder. Hardy vegetables, such as turnips and cabbages, are raised in small quantities.

During the five months while we were out frosts occurred each month. The settlers claimed that June was the only month likely to be free from frost.

ECONOMIC PRODUCTS.

Besides the wood, some of the resources of the reserve are coal, oil, building stone and, indirectly, water-power.

Coal was found in nearly every township along our traverse. In the north, the veins were small, but the south appeared particularly rich in the product. So far, for lack of transportation these mines have been little developed.

The oil wells are as yet little developed. Plants are established on both branches of the south fork of the Oldman river, but are not now in operation.

With transportation facilities, building stone will likely be quarried in large quantities.

Several small falls were located from which water-power could be generated. The principal one is the fall on the Elbow river from which it is proposed to produce electricity to light Calgary.

FOREST FIRES.

Since forest fires have so affected the eastern slope and as fire protection must be the chief factor in the administration of the reserve it may be well to mention this subject.

It has been already mentioned that repeated fires have devastated the eastern slope and that the forest type consequently has been altered and areas eroded. During the last sixty years likely 60 per cent of the eastern slope has been fire-swept.

Last summer, on account of the exceptional dryness, high winds, lack of assistance at first, and lack of knowledge of the interior country, fires, started by the carelessness of fishermen, surveyors and also by incendiaries soon reached unmanageable size. Fire guards were hastily ploughed in the open valleys and back-firing from these was operated.

There is now from south of the north fork of the Oldman river to north of the Highwood over forty miles of fire guard. The fire guard runs from along the proposed boundary to two miles east of it, and with little expense could be kept open by ploughing one year and harrowing the next, freeing it of weeds and grasses. With a little change it could be made to answer a two-fold purpose of fire guard and road.

In the coming years the fire danger will be increased with the taking up of neighbouring lands, by the opening up of new railroads and coal mines, and on account of the large quantities of dry dead material resulting from fires. This material will do for fuel and fence posts and for mine props, if not left too long. However, a large part is inaccessible, but a considerable quantity in the more accessible parts, where the danger is now greatest, could be disposed of.

To witness such fires as occurred this summer, it is apparent that, for efficiency, the fire rangers should live on the reserve and that they are too few and their districts too large. If the rangers' headquarters were located on the reserve, and in communication with the principal trails, travellers would be under a degree of supervision. The districts should be of such a size that a patrol could be made of it within a certain number of days, say for instance, five. Lookout stations could be located on commanding hills and trails cut to them. Thus the supervision of a large tract could be undertaken. The ranger should become familiar with his district and divide it off by fire guards, by trails and by natural barriers, such as streams and rocky ridges, so that a fire may be confined to one of these smaller areas.

A much larger district could be apportioned in the interior districts, traversed only by prospectors and a few others, than along the railways and eastern slopes where travellers are most frequent, and by which entry is made to the interior.

The game wardens in co-operation with the rangers could assist greatly in warning campers and keeping them under supervision.

FISH AND GAME.

In most of the streams and lakes, bull, cut-throat and the so-called grey trout are found plentifully. During the summer the rivers and Waterton lakes are very popular with fishermen.

Duck, grouse and prairie chicken were seen in large numbers. Duck were particularly thick in the south on account of the numerous sloughs.

Deer were sighted quite frequently, especially after the fire when they were driven eastward to look for food.

In the south, in connection with the Kootenay Lake forest reserve, there is a mountainous district which is the home of mountain sheep and goat, and bear. The United States government have set aside, as a game reserve, in Montana, an area of 1,400 square miles, just south of the international boundary. If the southern district of the eastern slope reserve were also set aside as a game reserve, the game thereon would be accessible to the Canadian sportsman, and in co-operation with the United States game reserve, foster the continuance of the game. Otherwise, with the game on one side of the international boundary protected and on the other side not, the game will soon become inaccessible to the Canadians, as the animals will cross over to the protected side.

THE PORCUPINE HILLS.

East of the slopes of the Rocky Mountain, from four to nine miles, and north of the North Fork of the Oldman river, are the Porcupine Hills. These hills, which are in an area about fifty square miles, are of a nature which would seem to render them suitable for reservation, but intervening settlers, although scattered, prevented including these lands within the eastern slope reserve. Time did not allow a thorough examination of this district.

The Porcupine Hills are a series of high hills running in a southerly direction. The hillsides are covered with merchantable spruce and red fir, while the valleys are open grazing land. The hills, high, steep, stony and rough, make this district impossible for agricultural success. Out of a quarter-section only a small part would be open arable land.

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Several creeks, as the Callum, the Heath, the Burton and others, find their sources in these hills and water the neighbouring district.

On account of the nearness of Nanton, High River and other places, the timber will soon be cut off, especially on the eastern side, leaving bare, rocky hill-sides.

Thus on account of the timber and uselessness for agricultural settlement, these hills would be desirable for a reserve.

Respectfully submitted,

G. H. EDGECOMBE.

No. 6.

REPORT OF PETER Z. CAVERHILL.

DEPARTMENT OF THE INTERIOR, FORESTRY BRANCH.

OTTAWA, March 2, 1911.

R. H. CAMPBELL, Esq.,

Superintendent of Forestry.

Ottawa.

SIR,—I have the honour to submit the following brief report on the eastern slopes of the Rocky Mountains between the Elbow and Saskatchewan rivers.

Under your instructions dated April 20, 1910, I reported to Mr. A. Knechtel in Calgary, on May 30, and, after purchasing an outfit, proceeded to the Elbow river in range 5, west of the fifth meridian. Here I began a reconnaissance survey for the purpose of mapping the agricultural and grazing lands and locating a line which divides the above-mentioned lands from the non-agricultural, this line to be used as the eastern boundary of the proposed Rocky Mountain forest reserve.

In deciding what lands were suitable for agriculture and grazing, the topography, soil, elevation and climate were considered.

The general topographic character of the country is its rough, broken nature, gradually rising as we go west, in several ranges, to the base of the bare rocks of the mountains proper. The sides of these hills are steep, with thin, gravelly soil, which, if robbed of its forest cover, would soon be entirely washed away.

The larger rivers, flowing east, cut across these hills in rather wide valleys formed by a number of river benches varying between ten and forty rods wide and differing in elevation from ten to fifty feet. The soil near the edge of these terraces is very stony, becoming sandy as we go further back. These terraces often contain small areas of open grazing land of excellent quality, but the quantity is so small as to make them valueless. The climate at this elevation (4,000 to 5,000 feet) is very changeable, the days being hot and the nights cold, often with frost, making the growing and ripening of farm crops very uncertain.

While the elevation prohibits farming, grazing may be carried on, in the open valleys even into the heart of the mountains themselves. These valleys being narrow and the areas so limited, it would be impossible to exclude them from the reserve. I believe they can be as well administered within under grazing lease. The grazing is advantageous in two ways; first, it rids the forest of dry and inflammable grass, and second, the cattle in going to and from their feeding grounds do so on well defined paths which could be used as fire guards if occasion arose.

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The forest may be divided into two main types: first the original forest type, occupying about fourteen per cent of the region, and second the fire formed type. The first is again subdivided into three types:—(a) the slope type composed of pine, spruce and poplar in varying proportions, depending on exposure, soil, slope and moisture content; this type contains nearly all the merchantable timber; (b) the swampy type, covering only a small area, being confined to the borders of muskegs, and composed of small black spruce and larch; (c) the river bottom type, found along rivers and on rich alluvial lands, spruce and balsam composing this type. They reach a large size and make fine timber. The fire-formed type occupies about seventy-five per cent of the region and is formed of pure lodgepole pine stands, or on the steeper slopes of willow and alder brush. It results directly from fire, and the wonderful reproductive capacity of the pine. As we came east near the prairie, aspen takes the place of pine in this type.

The most common species found are:—

Pinus contorta var. *Murrayana*—Lodgepole pine.

Picea Engelmanni—White spruce.

Populus tremuloides—Aspen.

Populus balsamifera—Balm.

Pseudotsuga mucronata—Douglas fir.

Picea mariana—Black spruce.

Besides these are found in limited quantities *Abies Balsamea*, *Larix Americana* and *Betula Papyrifera*.

FISH AND GAME.

Fish abound in all the streams and lakes. The following varieties were noticed: Cut-throat trout, bull trout, grayling, pike and suckers. These in many cases reach a large size. Bull trout are caught weighing seven to eight pounds and much larger ones were reported.

Game is abundant especially in the north. Moose, deer, elk and sheep were seen, while the several varieties of grouse and prairie chicken were very plentiful. Fur-bearing animals such as mink, otter, lynx, wolves, bear and beaver are found. With its vast extent and varying topography this reserve should become the greatest game reserve in the world, and from this source alone a large revenue will be obtained in future years.

MINING AND MINERALS.

Little mining is carried on in this region. Coal outcrops in various places on the Elbow, Bragg, Fallentimber, Red Deer and Saskatchewan, but the seams are only a few inches thick and of low grade. Valuable seams exist farther west on the Saskatchewan, Brazeau and Macleod rivers, which are being developed and railroads are rapidly pushing lines in that direction by way of the Saskatchewan.

Limestone, shale and sandstone exist in large quantities and with better transportation facilities will be valuable for building purposes.

FIRE.

Fire is the worst enemy the forest has. Eighty per cent of the territory surveyed has been burned in the last fifty years, and sixty per cent of this, or forty-eight per cent of the entire country has been burned over in the last twenty-five years. The causes of the fires have been various, many laying the blame to the Indians, who believed if the forest were destroyed new grazing land would be found for the disappearing buffalo. This may be true in some cases, but more, I believe, is due to the carelessness of the white trapper and the numerous other campers we find within the borders of the forest.

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How best to deal with these fires requires more study than I have been able to give it. I would, however, recommend building a fire guard along, or near, the eastern boundary of the reserve to prevent any settlers' fires from spreading into it, strengthen the present fire patrol, giving each man a certain definite territory to cover and not more than he can cover in a week's trip. He should be in the reserve at all times during dry seasons. The game and fish guardians should see that the ranger has notice of the whereabouts of all hunting and fishing parties in his territory, so that he may keep in touch with them and see that they exercise due care with regard to their camp-fires. As time permits the ranger could be exploring his territory and mapping it, making trails and fire guards to connect streams and in many other ways preparing to handle a fire should one occur.

I am, your obedient servant,

PETER Z. CAVERHILL.

No. 7.

REPORT OF G. A. CROMIE.

NEW HAVEN, CONNECTICUT, U.S.A.

March 31, 1911.

R. H. CAMPBELL, Esq.,
Superintendent of Forestry,
Ottawa, Ont.

SIR,—I beg to submit the following report on the work done under my charge since June 1, 1910. This readily falls under two headings:—

1. Summer field work:—Examination of lands in timber berths; of unsurveyed berth lines and of certain patented claims on which the Crown still held ownership of the timber, in that part of the railway belt of British Columbia between Revelstoke and Kamloops.

2. That done in the winter as forester in connection with the Calgary Crown Timber Agency.

EXAMINATION OF LANDS IN TIMBER BERTHS IN BRITISH COLUMBIA.

Many of the timber berths that have been granted in the Dominion railway belt in the past contain areas of what is now very valuable agricultural land. At the time they were granted very few settlers were coming into the country, there was plenty of good land open for entry not covered with timber, and there were little data on hand and few surveys made to show what was valuable for farming or even the exact location of bodies of timber applied for as licensed berths.

For these reasons, such berths often contained tracts of land without timber and perhaps suitable for farming. Also, since they were granted, fires have swept over them clearing out patches of timber, and cutting has been carried on where the timber was most accessible, therefore on the land nearest the rivers and the most suitable for farming.

Because of the difficulty of locating these deforested lands, there rarely being government surveys in the berths, the small size of the annual rent charged on timber licenses on Dominion lands, and the lessened credit and sale value obtainable if atten-

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They were directed to any decrease in the timbered area of the berths, companies holding them rarely had the lands withdrawn from their licenses as soon as they were de-forested.

Settlers took up the available lands, which increased in value until now, in parts of the province suitable for fruit farming, they sell as high as two hundred dollars an acre without improvements. The settlers had no way of obtaining farming land in timber berths unless the companies themselves were willing to have these lands withdrawn, and there were instances where the companies holding berths used this power to get timber logged and placed in the rivers at less than the usual price or to obtain land for their employees and friends in preference to the general public.

On the other hand, the throwing open for homestead entry of small areas of land adjacent to valuable timber increases the fire risk to the timber. The new settler looks at the timber as an obstacle to further settlement in the district and as property on which no local taxes are paid, which means that his taxes are that much greater. These conditions will exist to a certain extent until such time as the timber is removed from all lands suitable for farming, when it will be to the settlers' advantage in every way to prevent fires.

It was assigned to me to make an examination of the agricultural land in certain timber berths in the railway belt between Revelstoke and Kamloops, B.C., and for the purpose I, with a party of three men, reported to Mr. Knechtel, inspector of Reserves, and yourself on June 7, 1910, and received detailed instructions, maps, &c.

Work commenced at once, the general plan of which was as follows:—

A rough general inspection had been made of the country in 1909, and the land classified as agricultural, grazing or permanent forest. Where land in berths was designated as of agricultural or grazing value, or where we heard of squatters or settlers locating in a timber berth we made an examination.

Section corners located by Dominion survey were found and from these we ran lines with a staff compass at intervals of about a mile through the land to be examined. Marks were made at five chain intervals and small stakes placed to show the boundaries of legal subdivisions or forties. If, from these lines and from frequent trips into the adjoining woods, it was evident that the whole area was heavily timbered no further examination was made. If portions of the land seemed to contain less than 5,000 feet B.M. per acre a further and detailed inspection was made of each forty by paced or chained traverses from the points previously marked on the compass lines. On account of the sudden changes in the character of the timber the usual method of narrow strips and plots was not considered sufficient for an estimate of the timber, so strips five chains wide or large plots were estimated by counting all the trees on them and measuring one tree out of every five. By comparing the density and size of the timber on these strips with that of the rest of the forty an estimate was made of the timber on the forty. In all cases the deduction for cull was determined by cutting into occasional trees showing signs of defect and by noticing stumps on lumbered areas or surveyed lines, and this was checked by consulting local cruisers and lumbermen as to their practice in the district.

The point of the amount of cull in timber is very important in this district, the amount having to be deducted as unsound varying as much as from 10 per cent to 80 per cent in cedar and hemlock. In fact, this alone is largely responsible for the difference in estimates of the same timber often found even among the most experienced cruisers here.

The data taken on each forty acres in this detailed inspection were as follows:—

1. Elevation above sea level and adjoining lakes or rivers.
2. Slope and roughness of the ground.
3. Character of soil and subsoil.
4. Water content of the soil.

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3. Amount and character of young forest growth.
6. Amount of firewood, slash and dead timber.
7. Character and area of agricultural land on the forty.
8. A description and estimate by species of the merchantable timber.

In making recommendations as to the disposal of these lands the following other points were taken into consideration:—

1. The demand for land in the vicinity.
2. Distance from roads, settlements, &c.
3. The increase in the fire risk to adjacent timber from throwing this land open to homestead entry.
4. The length of time it would take companies owning this timber to reach it with their logging operations without undue inconvenience or loss to themselves.
5. The relation between the cost of logging this timber and the present prices of timber.

In this manner an inspection was made of the agricultural land in 42 timber berths during the period from June 7 to October 28.

The total number of legal subdivisions examined in detail was 947, and recommendations were made as follows:—

(a) Immediate withdrawal from berth.	327
(b) Withdrawal in one year.	40
(c) " in two years.	90
(d) " in three years and longer.	44
(e) Not recommended for withdrawal at present.	416

The districts examined contained some of the best timbered areas in the province. However, it is very noticeable and very much to be regretted that one may stand on any mountain peak in the district and find that four-fifths of the forest in sight has been swept over by fire within the last forty years. Fires undoubtedly occurred before the coming of railroads and settlers, but the size of the stumps and logs on burns with the timber now standing on soil of similar character to that on the burns would indicate that the country was once almost a solid mass of mature timber.

Except on the high peaks and steepest slopes this burnt area is being completely restocked from trees and seeds that survived the fire and a prevention of further fires will make the poor lands of which the greater part of this district is composed a permanent timber supply for the prairie provinces.

The character of the forest varied from dense, almost impenetrable, cedar in Frog lake district to stands of bullpine and fir near the North Thompson so open as to allow good grazing.

A list of the species of trees in the district valuable for timber is as follows:—

Western cedar (*Thuja plicata*), comprises in many mills 75 per cent of the cut; in this district a tree commonly ten feet in diameter and 140 feet in height; has to be culled very heavily on account of hollow heart, many of the largest trees being mere shells; made into shingles, the best grades of finishing lumber and the poorer grades of rough lumber.

Douglas fir (*Pseudotsuga mucronata*), occurring as 50 per cent or more of dense stands of timber 15 inches to 30 inches in diameter and 100 feet high, or with more branches and taper in open stands with bullpine; valuable for all building purposes and fairly free from defect, but of a harder texture and more liable to shake than on the coast.

Western white pine (*Pinus monticola*), one of the most valuable trees of the district but rarely forming more than 10 per cent of a mill's cut. In several places acres of young healthy trees of this species had been killed by bark beetles.

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Bullpiue (*Pinus ponderosa*). Lumber somewhat similar to that of white pine, but more brittle, with more knots and defect, forming 50 per cent or more of the stand in districts having deficient rainfall.

Larch (*Larix occidentalis*). A very valuable timber of fine grain and texture but found here in abundance only in the vicinity of the Shuswap river and Mara lake.

Western hemlock (*Tsuga heterophylla*). This species here makes lumber of such poor quality, and is so liable to heart rot that unless very accessible it has counted little in logging operations.

Spruce (*Picea Engelmanni*). A valuable species forming 5 per cent to 10 per cent of the cut in the wetter portions of the district.

Balsam (*Abies lasiocarpa*), forming pure stands of trees 10 to 20 inches in diameter on the high plateaus at the limit of tree growth; not lumbered yet on account of the inaccessibility.

Until the middle of September the party consisted of myself and three assistants, forestry students from Toronto University, with occasionally a local fire ranger. After that date there only remained to be examined a number of small timber berths, requiring little time to cruise but much travelling to reach, so the rest of this work was done with one local assistant.

As regards conditions affecting any policy in caring for or disposing of government land in this district, the following may be of use:—

By far the greater part of this land will never be of commercial value except for the timber that can be taken from it. Most of the timber of the future is in stands 10 to 40 years old, following fires occurring at a time when little or no effort was made to check them and before any fire ranger system was established. A good reproduction of seedlings usually appears after a fire in virgin forest, but a second fire destroying these leaves little chance for another stand of trees except by planting or seeding, which, on account of its cost, would be impracticable for the large areas that would have to be dealt with here.

Lumbermen, only holding licenses and not caring to wait during long periods for returns of money invested, are interested only in preserving existing stands of timber. Logging in the past has been done in large operations for mills cutting ten million or more feet of lumber a year, and the logs have been driven down the rivers and larger streams. As the larger patches of timber and those nearest these drivable streams are cut out, lumbering will be done more and more by smaller mills or by large mills in connection with logging railroads. This will increase the fire risk.

Receiving at present only about the lumbering cost for timber taken off their land and not realizing the ever increasing value of timber as well located as theirs, settlers as a class consider even the young forest growth on their own places as an obstacle to settlement and when clearing allow fires to destroy it on parts of their farms entirely unsuitable for agriculture. In the timber of the rocky lands of this district lies the future of the settlers, furnishing them with a supply of cheap building material and a market for their produce and labour. The duty, then, of protecting this forest falls on the government without as strong local support at present as might be desired. This support on the part of the settlers at least will not be given while they feel that the presence of timber on agricultural land prevents it from being thrown open for settlement for an indefinite period.

EXAMINATION OF UNSURVEYED BOUNDARIES OF TIMBER BERTHS.

At different times during the summer and fall of 1910, while in British Columbia on the work before mentioned, I examined parts of the boundaries of timber berths left unsurveyed at the time of granting the license. The parties receiving a license were required to survey a line inclosing such timber berth, except at inaccessible

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points. Many of these places marked inaccessible in old surveys were so only because of the excessive cost of survey compared with the small value of timber when at a distance from drivable streams. As timber is becoming more valuable each year and more accessible with the use of such improved methods of lumbering as logging railroads, flumes, &c., it is now advisable to run many of these lines not before considered necessary.

Under instructions from you I examined parts of the boundaries of four timber berths to see if a completion of the survey were possible or necessary. In most cases it was found that such uncompleted surveys were at rocky, inaccessible points or along mountain sides where there was little merchantable timber outside the berth. There is much of this work yet to be done in the district, it having been stopped at the approach of winter.

ESTIMATING TIMBER ON PRIVATE CLAIMS.

On many pieces of land disposed of from time to time to be used as townsites, millsites, or for other industrial purposes, the government had reserved the standing timber. As clear title could not be given until this timber was disposed of, those claims in the railway belt between Revelstoke and Kamloops (eleven in number) were cruised during the summer. In no case was the timber on a claim of sufficient value to justify the further withholding of clear title.

WORK DONE IN CONNECTION WITH THE CALGARY CROWN TIMBER AGENCY.

On November 7, under instructions from you, I reported at Calgary, Alberta, to do any work as forester required in connection with the Dominion Land and Timber Agency there, and have remained in that capacity until the present time. This work included:—

1. A completion of part of the preliminary survey of the boundary of the Rocky Mountain forest reserve, under the charge of Mr. P. Z. Caverhill.
2. Collecting and settling overdue timber permits.
3. Locating, inspecting and cruising timber applied for under the square mile and quarter mile permit regulations.
4. Inspecting the cutting and operations on licensed berths and permit berths.
5. Seizing timber and collecting dues, where illegal cutting had been done on Crown lands.
6. Making a report on the methods used, men employed, and cost of lumbering on the average small mill cutting on permit berths in the Calgary Timber Agency.

LUMBERING BY SMALL MILLS ON PERMIT BERTHS IN WESTERN ALBERTA.

Location of Outfit and Procedure.—In these small operations very little work is done previous to establishing the camps and mill. The owner of a mill of this character has usually some experience at cruising, and has a knowledge of the country he is in, often being a farmer with land in the vicinity of his mill.

A thorough cruise and estimate of the timber are rarely made, the owner going once or twice through the tract to be operated on, and in locating relying on his judgment that there is enough timber for one or more years' cut.

A permit is obtained if the timber is on Crown lands, by making a deposit of 20 per cent of the Crown dues (50 cents per M.) on the amount of timber applied for, and by paying one hundred dollars as ground rent for the use of the section for the year. As lumber cut from permit berths must be sold in the vicinity of the mill and not shipped by train to distant markets, it is essential that the location be near a well settled or fast growing district.

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The mill is placed not more than three miles from the timber to be cut, on some small stream that will give a supply of water for steam and domestic purposes the year round. It is always located with the haul down hill from the woods to the mill. Machinery is ordered, roads are cut out and made, both from some railroad station for the bringing in of supplies, machinery, &c., and the main roads for hauling logs to the mill. Log camps are built. The framework of the mill, usually rewed out of logs close at hand, is put up and machinery placed so sawing can commence. The lumber is then sawn for the flooring, roof and sides of the mill and for other buildings. During this time cutting and hauling have been carried on, the skidways and landings are piled high with logs, and then the regular sawing may commence.

The greater part of the lumber is sold in the rough, the farmers who drive right to the mill to get the lumber preferring to haul its extra weight when unsurfaced and full-sized to paying the cost of planing it. To give the cost of each part of an operation, figures were taken from a mill cutting lodgepole and spruce in the Crowsnest Pass and these checked with costs from similar mills but in other parts of the province.

Road Making.—About four miles of road from the mill to the town and to the first skidways had to be cut and light grading done. This required the work of ten men ten days or one hundred days' labour. The road passed mostly through small lodgepole and brush, so was more easily made than would usually be the case. Cost: 100 days' labour at \$2.25=\$225.

Camps.—As these small mills are usually within a couple of miles of the timber, the one set of camps does for both the logging and the mill crews; in fact the same crew in many cases do both operations, getting out the logs in the winter and when the supply runs short at the mill, and sawing the rest of the time.

List of Camp Buildings:—

1 log camp for sleeping and cooking.	30 ft. x 36 ft.
2 log stables.	18 ft. x 18 ft.
1 log house for foreman.	16 ft. x 20 ft.

The labour involved was 8 men for 10 days or 80 days one man labour. Only 2,500 feet B.M. of lumber was used, the rest being logs for which no stumpage was charged.

Cost:—

80 days labour at \$2.25.	\$180
2,500 B.M. lumber at \$10.	25
Windows, nails, locks, &c.	25
	<hr/>
	\$230

Camp Equipment.—This consisted of tools to carry on the lumbering, repairing, cooking and blacksmithing. It is usual, also, in many small mills such as this to carry a small supply of clothing to sell to the men. This was not done here.

Equipment List:—

Cooking outfit.	\$200
Groceries on hand.	100
Blacksmith tools.	60
2 doz. axes at \$1.25.	30
5 saws at \$4.	20
4 sets sleds at \$40.	160
4 sets harness at \$35.	140
12 cant hooks at \$1.75.	21

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12 chains.	35
2 sets skidding tongs at \$5.	6
2 wagons.	200
Stable incidentals.	20
	<hr/>
	\$992

Animals.—Horses were the only animals used for hauling. Of these four teams were owned in connection with the mill, and often one or two extra teams were hired. As these teams hired were paid \$5 per day (team and driver), and board for driver, this price was used as a basis in charging operations with horse labour.

Each team was fed 30 lbs. of hay and three-quarters of a bushel of oats per day, costing altogether about 75 cents delivered at the stables. Young strong horses were used, costing \$500 per team. A horse's average life here was six years of work.

Men.—Much of the help hired were men having home-steads in the vicinity and working here part of the year only. Twenty to twenty-five was the regular crew kept. Of these, two received \$40 and the rest \$35 and board per month. As the cost of the men's board (including cook's wages) was from 75 cents to \$1 per day each, this made the common labour worth about \$2.25 per day.

The crew at camp was:—

1 Cook.	\$60 per month and board.
Cooker.	35 "
1 Blacksmith.	40 "
1 Team hauling supplies, horsefeed and repairs, \$5 per day and board.	

The total cash outlay at time of starting logging then would be—

Road making.	\$ 225
Camps.	230
Camp equipment.	992
Horses.	2,000
	<hr/>
	\$3,447

Felling and skidding.—Logs were felled and skidded by ten men with two horses, working on one skidway but really in two crews. Two men sawed down trees and cut them into logs, one man swamped or cut away brush, &c., one man with one horse hauled the logs to the skidway, where two men rolled the logs up the skidway for this and another similar crew. The daily output on the skidway of a crew like this is 300 logs, averaging 20 logs to the 1,000 feet B.M. The labour cost of felling and skidding them is:—

10 men at \$2.25.	\$22 50
2 Horses at \$2.52.	5 05
	<hr/>
15,000 B.M. costs.	\$27 55

Cost per M., \$1.84.

Scaling.—As no work was done by contract, no scale was taken of the logs except to obtain the log run or number of logs per 1,000 feet B.M. This would be done about once a week. The number of logs skidded was counted every night and in this way a rough check kept on the progress of the work.

Hauling.—This was done on level hauls by teams with two-sled outfits and on the steeper roads by teams with one sled and the hind end of the logs dragging on the ground. The logs being so small were easily loaded by men with canthooks, no cross-hauls being required. One or two men were required all the time keeping the hauling

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road in repair. As the haul was but little over a half-mile long, each team made eight trips per day, 800 feet B.M. being carried each trip. Logs when hauled were placed on skidways near the mill, where a couple of men kept them rolled up.

Cost of hauling:—

3 Men (one at skidway, two at landing)	\$ 6 75
3 Teams and drivers at \$5.	15 00
Board of drivers, 3 men at 90 cents.	2 70
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3 Teams hauled per day 19,000 B.M., costing.	\$ 24 45
Cost per M.	1 28

Sawmill.—The mills on these operations are never large, all machinery being easily taken apart when it is necessary to move the mill. The logs are small and only the cheaper forms of construction lumber with a small amount of planed boards are manufactured. The sawmill itself was 30 feet x 65 feet, and when sawing started 8,000 feet of squared 9 in. x 9 in. timbers and 6 in. x 7 in. braces had been used as framework. The first sawing done was lumber to complete the mill, and of this about 9,000 feet B.M. was used. As a mill of this character rarely worked more than half the time, the crews leaving the mill to get in logs, a yearly cut of one and a quarter million feet would be considered good. Slabs were used as fuel; sawdust and refuse were taken by a chain carrier about 100 feet away from the mill and burned.

Machinery and Costs of Mill:—

8,000 B.M. hewed timbers at \$10 M	\$80 00
9,000 B.M. lumber at \$10 M.	90 00
Labour in building mill and putting in machinery. . .	200 00
Engine 25-32 horse-power (often a traction engine and boiler combined).	1,600 00
Carriage (cable feed) with saw frame.	555 00
Edger.	300 00
Two saws.	80 00
Shafting, pulleys, belts.	1,400 00
Decker chain.	90 00
Slab cutter and lumber trimmer.	165 00
Small planer (planes one side only).	400 00
Supply mill materials (bought second hand).	200 00
Duty on part of outfit brought from United States.	280 00
Freight.	50 00
Hauling machinery from station to mill.	200 00

Total cost of mill. \$5,690 00

The mill crew and wages paid were as follows:—

Sawyer—\$50 per month and board—value of day's work. .	\$2 85
Canter (rolls logs on carriages), \$35 and board; value of day's work.	2 25
Engineer, \$5 per day and board.	5 90
Two men at edger and trimmer, at \$35 per month and board.	4 50
One team (used to haul logs to decker chain and to haul away lumber.	5 90
<hr/>	
Cut per day 10,000 B.M., costs.	\$21 40
Labour cost of sawing per M.	2 14

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Hauling Lumber.—This mill had little space close to it for drying lumber; the roads to it were very poor part of the year; also a large part of its output was shipped short distances by railroad to coal mines and settlements within the 50-mile radius to which mills cutting under permit are allowed to sell. For these reasons all lumber was hauled from the mill and piled in yards in a railroad town $3\frac{1}{2}$ miles away, the hauling being done at a contract price of \$2 per M.

Cost of Lumbering (Itemized).—Yearly output placed at $1\frac{1}{4}$ million feet:—

Capital invested in mill, equipment, camps, &c., equals	
\$9,137; interest on this at 8 per cent is \$731.	
Cost of interest on equipment investment per M.	\$0 59
Capital continually invested in wages, stock in hand, lumber sold, \$4,000.	
Cost of interest on this item per M.	25
10 per cent yearly decrease in value of equipment, equals	
\$913; amounts per M. to.	73
10 per cent on equipment added for repairs, unusual expenses, &c.	73
Felling and skidding.	1 84
Hauling logs to mill.	1 28
Labour cost of sawing.	2 14
Contract price, hauling lumber to railroad.	2 00
	<hr/>
	\$9 57
Stumpage dues to Crown.	50
Cost of Crown ground rental per M.	08
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Cost of lumber per M., in yards near railroad. \$10 15

In showing these costs it should be borne in mind that the better timber and that closest to the mill is being cut the first year, and that the average of the logging costs will likely be from 50c. to \$1 per M. higher for the whole operation from the present mill site.

Your obedient servant,

G. A. CROMIE.

No. 8.

REPORT OF H. CLAUGHTON-WALLIN.

VANCOUVER, B.C., April 1, 1911.

R. H. CAMPBELL, Esq.,
Superintendent of Forestry,
Ottawa.

SIR,—I have the honour to submit herewith my annual report dating from May 1, 1910.

According to your instructions I was to examine timber limits in the coast district of the British Columbia railway belt with the view of obtaining such information as would enable me to forward to the department for each timber berth a report containing:—

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1. Description of general character of land elevation, slope, soil, &c.

2. Description of timber species, stand, condition, &c.

3. In cases where persons are located on the timber berth in question all information which would be useful to the department in deciding on the action to be taken in dealing with those persons and their claims.

4. My recommendation as to such lands which I considered should be withdrawn from the berth, stating the reasons therefor and the time for withdrawal.

A map or sketch of the examined berth should accompany the report.

I also received instructions to examine unsurveyed boundary lines of certain timber berths where the survey had not been completed, the surveyor stating that the country was inaccessible.

Three forest students were employed as assistants, one from May 1 and the other from the beginning of June. The work was carried on without interruption from May 1 to the last day of September, when my assistants left the employ of the government to return to their respective colleges. From that time on I have either travelled alone or engaged a temporary assistant to accompany me on my trips of examination. During the months of January, February and the first half of March the weather conditions have been very unfavourable for any field work and I have had to devote most of my time to writing reports, work on volume table, &c.

During the past year I have examined:—

All the limits south of the Fraser river from the Pacific coast east to Cheam mountain, not including the limits situated on the Chilliwack river.

All the limits north of the Fraser river from the Pacific coast east to the Harrison lake, which are coming into contact with settlement.

Seventeen limits have been examined in regard to uncompleted surveys of boundary lines and reports forwarded to Ottawa.

Altogether about 100 square miles were cruised, which area I would classify as follows:—

1. As regards timber:—

	Sq. Miles.
Land covered with green timber, approximately,	72
Land which has been burned over; forest cover established.	23
Land which has been burned over; forest cover not established.	5
Total.	100

Approximately 12 square miles of the examined area had been logged over or were at the time of examination under logging operations.

2. As regards soil:—

	Sq. Miles.
Lands only suitable for sylviculture.	67
Lands which from the character of soil or from other reasons such as location were considered more valuable for other purposes than sylviculture.	33
Total.	100

Of these 33 square miles, letters patent have been issued on 8 square miles, with a reservation of the timber to the Crown.

SQUATTERS.

It is obvious that in a country like British Columbia, where comparatively little land is available for agricultural purposes, it is a very difficult undertaking to keep home-seekers away from timber limits and in particular from such limits as are

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partly or entirely surrounded by homesteaded or patented lands. A considerable number of squatters were found on limits so situated and their number is increasing steadily.

Some of the squatters have quite extensive clearings, good buildings and other valuable improvements, and live permanently on their 'homesteads' as they often call the land they claim; others build only a small shack, where they only stay occasionally, generally when out of work, the main object of their buildings being to show that the land is taken up.

It is not only that the squatters cut and destroy timber belonging to the government, but the danger of fire is always greatly increased on a limit that is inhabited by squatters. It is my opinion that very strict measures have to be adopted to stop the squatting on timber limits. The fact that all these settlers have the opinion that, when the land is thrown open for settlement, they will have prior claim, has greatly encouraged the practice of squatting within timber limits.

I would respectfully recommend that it should be plainly pointed out to them in future that such claims would not be recognized. It is often a dangerous thing for the lumberman to attempt to evict men who are liable to set fire to the timber.

TIMBER.

The predominant species of coniferous trees on the examined area were Douglas fir (*Pseudotsuga taxifolia*), red cedar (*Thuja plicata*), and western hemlock (*Tsuga heterophylla*). These three species generally form the stand. The distribution varies. Pure stands of any of these species occur only occasionally. Fir sometimes forms nearly pure stands on rocky mountain slopes. On most flats or in creek bottoms cedar is generally the dominant species, with hemlock or sometimes Sitka spruce as a common associate.

Viewing the examined area as a whole, however, I would say that the average stand consists of 60 per cent Douglas fir, 30 per cent cedar, 9 per cent hemlock and of other evergreen species 1 per cent. With other evergreens, I mean Sitka spruce (*Picea sitchensis*), jack or lodgepole pine (*Pinus contorta*), white pine (*Pinus monticola*), white fir (*Abies amabilis*), and yew, (*Taxus brevifolia*), which trees were found scattered in groups or singly.

Yellow cypress or 'yellow cedar' (*Chamae Opyaris nootkaensis*) and mountain hemlock (*Tsuga mertensiana*), which appear in the Fraser valley on higher slopes, were not seen on the limits which have so far been examined.

The broadleaf trees which were met with were:—

Willows, black cottonwood (*Populus trichocarpa*), western birch (*Betula occidentalis*), red alder (*Alnus oregona*), broadleaf maple (*Acer macrophyllum*), vine maple (*Acer circinatum*), Oregon crab apple (*Malus vivularis*), western choke cherry (*Prunus demissa*) and dogwood (*Cornus*), oak (*Quercus garryana*) were seen near Chilliwack.

The Douglas fir is a magnificent tree in the coast district, sometimes reaching a size of 7 to 8 feet in diameter, a height of from 200 to 250 feet with a log length of from 140 to 200 feet, and cutting up to 20,000 feet B.M. The average size of the fir I find to be 34 inches diameter at breast height, height 150 feet, log length, 100 feet. Following is an average volume table for fir:—

Diameter breast high.	Log length, feet.	Volume in feet, feet B.M.
12 inches.	20	50
24 "	90	700
36 "	100	2,000
48 "	115	4,500
60 "	125	7,500
72 "	145	11,500
84 "	160	18,000

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The cedar tapers much more than the fir and is more inclined to be hollow, which reduces the cut. Trees with a D.B.H. of 10 to 14 feet, a height of from 125 to 175 feet and a log length of 100 feet were found. The old trees are extremely 'swell-butted,' which accounts for the enormous girth of the trees of comparatively short boles.

The average size of the cedar would be a diameter breast high of about 40 inches, a height of 100 to 120 feet and a log length of 60 to 80 feet.

Hemlock, which is always subordinate in association with Douglas fir and red cedar, sometimes attains a size of 3 feet or more and a height of 150 feet here in the coast district. Only a few such trees were seen, however, the average size being a diameter of 24 inches, a height of 100 to 120 feet, with a log length of 80 feet.

The quality of western hemlock wood is much superior to the wood of the eastern hemlock, and it is only a question of time when this species, which is now considered to be of comparatively low commercial value, will be gaining its right place in the lumber market. In its better grades this wood is useful for many of the better commercial purposes, and the prejudice against it is without foundation.

Nowhere else in Canada does so heavy a growth of timber occur as in the coast district of the British Columbia railway belt. It is not at all uncommon to find small patches of timber cutting 100 to 150 M. feet B.M. per acre, and whole limits averaging 40 to 50 M. feet B.M. per acre were found.

The average merchantable stands on the limits I examined would not be over 20 to 25 M. per acre, however.

REPRODUCTION.

The burnt or cut over areas in the coast district seem to restock very rapidly with fir, hemlock and cedar. Generally a period of from 7 to 10 years after a fire is enough to cover the ground with extremely dense reproduction. On land which has been badly burned over, leaving very few seed trees, I have found that the fir reproduction predominates, while on cut over lands which have not been burned or burned only lightly the tolerant hemlock is predominating. The reproduction of cedar depends more, it would seem, on soil and location than other factors of site.

Your obedient servant,

H. CLAUGHTON-WALLIN.

No. 9.

REPORT OF JAMES LEAMY, CROWN TIMBER AGENT.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS AND CROWN TIMBER OFFICE,

NEW WESTMINSTER, B.C., November 29, 1910.

R. H. CAMPBELL, Esq.,
Superintendent of Forestry,
Ottawa, Ont.

SIR,—I have the honour to submit herewith my report for the season 1910, covering the protection from fire of the forest in that part of the railway belt under the control of this office. In the eastern part of the district, during the months of

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April and May, the rain fall was very light and several fires occurred, the most serious of which took place on timber berth No. 88, under license to the Bowman Lumber Company. This was looked after by the ranger for that district, Mr. R. J. Stewart, but notwithstanding his efforts, a considerable quantity of saw logs were burned and some standing timber damaged. This was the only fire of any consequence which occurred east of the dividing line between townships 15 and 16, while that portion of the railway belt was under the control of this agency. As a new timber office was opened at Revelstoke, B.C., during the latter part of the month of June, since which time the rangers in that district have been under the control of the agent at the point mentioned, I therefore have no knowledge of any fires which may have taken place in that portion of the railway belt during the balance of the season. West from Drynoch station on the Canadian Pacific railway, to Ruby creek, patrolled by Messrs. Wm. Teague and Jos. Weaver, some forty fires occurred, in most cases caused by sparks from locomotives, but by prompt attention they were prevented from doing any damage to timber of commercial value. In that portion of the Nicola valley under the control of this office, no fire ranger was employed, as it was considered that Mr. Angus McGillivray, stationed at Ashcroft, and attached to the Revelstoke Crown Timber Agency, would be able to give that district the attention necessary; next season, however, with your permission, a ranger connected with this office will be employed to patrol that district, as many new settlers are going in there, and will require supervision. In the Harrison lake district, patrolled by Mr. R. Siddall, a fire occurred on timber berth No. 63 in the month of July, caused by the removal of a donkey engine, and was the means of destroying some 234 pieces of sawlogs estimated as containing 165,789 feet B.M., besides doing some damage to standing timber. Considerable expense was incurred in fighting this fire, as although the parties responsible assisted, it was necessary to employ a man for several days to take charge of the work, in order to leave the regular ranger free to patrol other portions of his district and give some attention to a fire running at the same time on timber berth No. 445, which had already been logged over, and did no damage. In the Cheam lake district, patrolled by Mr. John Dennison, only one fire which caused any damage occurred; this took place on Sumas mountain, burning over an area of about 15 acres, on which there was no timber of any commercial value. In this district timber berths A and 61 are situated, and the lands in these berths, with the exception of some 141 acres, having been patented by the department, the parties living thereon require close attention. The Cultus lake and Chilliwack river districts, patrolled by Messrs. J. and M. G. Fadden, were with one exception free from fire during the season. The one case referred to occurred on the Chilliwack river, on what is called Pierce mountain, and ran over an area of about 2,500 acres, destroying approximately 500,000 feet B.M. of timber. This fire was difficult to cope with, as it was situated at a high altitude, and no water whatever was obtainable. In the case of Mr. M. G. Fadden, it was arranged to keep him patrolling the route of the Canadian Northern railway along Sumas lake, in order to see that the regulations were lived up to, and while this railway did a large amount of clearing on their right-of-way, only in one case did they allow the fire to get beyond their control, and from this very little damage resulted. In the Abbotsford district, patrolled by Mr. John Ball and Mr. L. J. Chapman, only one fire of a serious nature occurred, and with the assistance of men secured from the lumber companies in that vicinity it was handled in such a way that only some eighteen cords of shingle bolts were destroyed. This district is very difficult to control, from the fact that fires across the boundary line require constant watching, in order to see that they do not spread to lands in the railway belt. In the Stave lake and river districts, patrolled by Mr. D. Gilchrist, a fire occurred on timber berth X, under license to the Bank of Hamilton, whereby some sixty cords of shingle bolts and 150,000 feet B.M. of timber were destroyed. In the Lillooet lake district, patrolled part of the season by Mr. Murdoch Martyn (who later had to retire on account of ill-health, and was replaced

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by Mr. D. Martyn), no fires on lands under license occurred. On the Pitt lake and Coquitlam river districts, patrolled by Mr. M. Marshall, a couple of fires took place which were caused by the carelessness of parties who had secured permits for clearing purposes, but no damage was done to standing timber, and no expenses were incurred thereby. A fire at Coquitlam lake, which escaped from the Vancouver Power Company, destroyed some 200,000 feet B.M. of timber. The most serious fire which occurred during the season started on July 10 from timber berth No. 299, under license to the Vancouver Power Company, and within a short time had reached such dimensions that it was impossible to check its progress, much less subdue it, although efforts were made to do so, and it was not until rain fell in the latter part of the month of September that it was completely extinguished. During the time this fire was burning it ran over an area of approximately 4,000 acres, mostly logged over lands, but yet it is estimated that from two to three million feet B.M. of timber was destroyed thereby. This district was patrolled during the season by Mr. V. D. Bray, who did everything in his power, assisted by Messrs. M. Martyn and M. Marshall, to control this fire, but with little success. In the Surrey district, attended by Mr. Neil W. Johnson, Jas. Jameson, A. Buck and Geo. Gairns (the latter was placed as a patrol on the Canadian Northern railway during the months of August and September last), no fires occurred during the months of May and June, but during the months of July, August and September, especially during the latter month, several fires took place, and while the rangers did everything possible to cope with the situation, it was found impossible to control them, and they were only extinguished by rain in the latter part of the month of September. These fires ran over timber berths Q, 176, 293, 234 and 450, and part of timber berth L, covering an area of approximately 3,500 acres. It is impossible to estimate the quantity of timber burned in these fires, as some of the lands had been previously logged over, but even in these cases there remained considerable timber of commercial value. A good deal of money was expended by this office and the officers of the provincial government, in fighting the fires in this district, and the loss to the settlers was considerable.

In connection with the issuing of permits to set fire, it is thought that more care should be exercised and that, in this connection, an inspection should first be made of the area to be burned over, in order to see that at least ordinary care is being taken to prevent the fire from spreading. The whole of the season, especially the latter part, was extremely dry, and dangerous from a fire standpoint. In all some two hundred and twenty-one fires were attended to in the railway belt by the rangers in the New Westminster district, 7,000 acres were burned over and the loss of timber is estimated at 3,500,000 feet B.M. In making suggestions for the improvement of the service, I beg to state that in my opinion it would be advisable to start the rangers on duty about April 1, dependent on the weather conditions, instead of May 1, as has been the practice heretofore. By doing this it is expected that the rangers will, during the month of April, when the danger from fire, especially during the early part of the month, is not so great, go over their district and pay particular attention to the more dangerous places from the standpoint of fire; while doing this they will be expected to post up the fire notices and distribute copies of the Fire Act to settlers. As an auxiliary in fighting fire, I would ask that provision be made to supply this agency with a gasoline launch of about 30 horse-power, which would be used as a patrol boat on the Fraser river, Pitt and Harrison lakes, and would also be of advantage in the matter of inspections, &c. I need hardly point out the benefit which has accrued from the patrol boat system inaugurated on Shuswap lake and Seymour Arm, a couple of years ago. Through your efforts arrangements have been made with the Board of Railway Commissioners to have an inspection made of locomotives running on lines in the railway belt. This inspection work will be done in the round houses of the various railway companies in Vancouver, and it is proposed to see that they comply in every

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respect with the requirements laid down by the commissioners, in regard to their being equipped with proper spark arresters. By this means it is hoped to lessen the number of fires caused by the railway companies. The work of inspection will be done by one of the rangers employed in connection with this office.

In closing, I beg to thank you for the valuable advice cheerfully given me on all occasions. To my assistant, Mr. Walmsley, I am also indebted for his wise counsel on the various matters which arise from time to time in connection with our duties, and to the various fire rangers I feel that the thanks of all concerned are due, for their faithful and efficient services.

Your obedient servant,

JAMES LEAMY,

Crown Timber Agent.

No. 10.

REPORT OF ANDREW FREEMAN, CROWN TIMBER AGENT.

DEPARTMENT OF THE INTERIOR,

WINNIPEG, MANITOBA, January 27, 1911.

R. H. CAMPBELL, Esq.,

Superintendent of Forestry,
Ottawa, Ontario.

SIR,—I beg to submit the following report respecting forest fires in this district during the year 1910.

The only serious fire which occurred last year in the Winnipeg timber district started about May 4, at Prairie river, on the Prince Albert branch of the Canadian Northern railway, and owing to the dry weather which had prevailed for a considerable time prior to that date, it spread rapidly in the north and easterly direction, and the fire rangers, who were in charge, soon found it beyond control.

According to a report furnished by Timber Inspector Sifton, who, acting under instructions from this office, made a thorough examination of the damage done by the fires in that district, several other fires started along the railway mentioned between Tisdale and Hudson Bay Junction between the 4th and 15th of May. It was found impossible to check these fires at that time, owing to the dry weather, and they consequently spread over a large area on both sides of the railway, and continued burning until May 28, when a heavy rain fell in that part of the country.

It is estimated by the timber inspector that the fires in question burned over an area of about 137 square miles, and he estimates that 10,600,000 feet B.M. of merchantable timber was damaged or destroyed. In addition to the standing timber the fires did considerable damage to property along the railway, the most serious of which was the destruction of the sawmill and other buildings belonging to the Crown Construction Company at Mistatim. A large quantity of logs was also destroyed, belonging to the Great West Lumber Company, who are operating Berth No. 974. I am pleased to state, however, that no loss of life was reported.

In the district southeast of Winnipeg several small fires started near the railway, but did comparatively little damage, as the fire rangers, sectionmen and settlers were constantly on guard, and a large number of small fires were extinguished. In the

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district north of Winnipeg, between Lakes Winnipeg and Manitoba, practically no damage was done to standing timber by fire during the past year, and the same may be said of the district north of the main line of the Canadian Pacific railway, east of the Red river.

As instructed by you last spring, the territory north and east of Winnipeg was divided into several districts, and a fire ranger put in charge of each one, and I am satisfied that the small damage done by fires is greatly due to the excellent work performed by these men, who were kept constantly on duty during the summer and until snow fell last fall. In the districts mentioned the settlers seem to be fully alive to the danger of forest fires, and very readily assisted the rangers from time to time.

Fire notices, in different languages, were posted throughout the entire district, and I am of the opinion that this was a great factor in preventing fires last year, which was one of the driest in the history of the province.

When our inspector visited Norway House and other sections in Keewatin during the summer he found that no serious fires had occurred in the district up to that date, and none have been reported since.

Your obedient servant,

ANDREW FREEMAN,

Crown Timber Agent.

No. 11.

REPORT OF A. L. ROBERTSON, CHIEF FIRE RANGER.

DEPARTMENT OF THE INTERIOR,

PRINCE ALBERT, SASKATCHEWAN, April 3, 1911.

R. H. CAMPBELL, Esq.,

Superintendent of Forestry,

Ottawa, Ontario.

SIR,—I beg to submit annual report respecting forest fire service in the Prince Albert division of the Saskatchewan timber belt, during the season of 1910.

Nine fire rangers were employed in the above district. Many small fires occurred, the greater number of which were ground fires, started by railway engines, settlers on lands adjacent to the timber belts, and by carelessness of land-seekers making selections of homesteads in the partly wooded country north of the North Saskatchewan river.

There was but one fire which did any appreciable damage to timber of commercial value. This fire, which occurred on Timber Berth 1048, Block 20, was said to have been started from burning of debris in the vicinity of the log camps of Big River Lumber Company. The manager of the mill turned out his mill staff to fight the fire and finally got it under control but not before about 1,000,000 feet B.M. of merchantable timber was fire killed. This timber was manufactured into logs during the past winter's logging operations.

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During the season 1910, I found that the area allotted to each fire ranger was too large. Seven of the fire rangers on service last year covered areas embracing thirty-five to forty-five townships, so that it can be readily seen that the work of supervising such large areas as the above justifies an addition to the staff, in order that more effective service can be rendered.

Your obedient servant,

A. L. ROBERTSON,

Chief Fire Ranger.

No. 12.

REPORT OF GEO. DOUGLAS, FIRE RANGER.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS AND CROWN TIMBER OFFICE,
PRINCE ALBERT, SASKATCHEWAN, December 1, 1910.

R. H. CAMPBELL, Esq.,
Superintendent of Forestry,
Ottawa, Ontario.

SIR,—I have the honour to submit a summary of the season's work in my district, Battleford.

The district has been well patrolled by the fire ranger and we have had only two fires this year, neither doing very much damage. The first one burned over about 60 square miles of young jackpine about 7 feet high, but a great deal of that has recuperated since the fire. The other fire occurred west of Meadow lake and scorched over about 5 or 6 miles square and probably damaged about 250,000 feet B.M. This was in Moran's district. I also have a man 1,100 miles north from Isle à la Cross to Cree lakes (J. Murray), he is patrolling October only, and will not get his report in till the spring, when he comes out. The effect has been good on hunters, trappers and especially the Indians as to being careful not to leave fires burning. In the course of my own patrolling I have noticed disease among the trees at different points, viz., larch canker on tamaracks, giving rise to an overflow of resin with small fungus growing on them. I intend instructing my fire rangers in the spring to cut away these parts when they see them. I intend taking a trip with each fire ranger for the purpose of pointing out the diseases so that they can deal with them in an intelligent manner and report any cases to me.

In some places I noticed the young plants were damped off, but to a very small extent. This possibly may have been caused by fire or the damping off fungus. I will take more minute observations in the spring of 1911.

I think all fungus seen growing on trees should be broken off and should be put into a sack and burned at the next camp fire.

South of the Battle river the whole of the trees for about 3 miles about half mile wide were defoliated by the caterpillar of the brown-tail moth. I also had two soft maples defoliated by the same cause in my garden, but I stripped the tree of the caterpillar.

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North of Bright Sand lake a whole swamp of tamarack was devastated by the larch sawfly or larch worm (*Nematia crichson*). I intend looking for the cocoons at the foot of the trees in the spring. I have not seen any damage to the spruce by the bark beetle or borer, especially very large trees. I have looked carefully for any traces of the spruce beetle (*Dendroctonus piceaperda*), but up to the present have found no traces of any. There are a few places where there is a very large quantity of dead and fallen wood among some very fine pine and spruce south of Meadow lakes which is a great danger and should be removed if possible. Settlers who have permits are very careless in leaving the branches and crooked logs lying all over the ground among the half-grown trees. I think some instructions should be printed on their permits to caution them against this practice; also instructions should be printed on the back of the big game licenses cautioning hunters and trappers not to build a fire against a tree or tree stump. They usually choose a large jackpine for this purpose: the fire gets into the roots, and after they have left causes damage.

There are several areas in my district which could be very profitably re-seeded, which could be done by the rangers with very little trouble under proper supervision.

As the water now is at its lowest I intend shortly to put in some of the measuring rods and procure readings next year, but would have to take fire ranger Venn with me, as it is a two-handed job.

Yours faithfully,

GEO. DOUGLAS,

Fire Ranger.

No. 13.

REPORT OF NORMAN M. ROSS.

INDIAN HEAD, SASKATCHEWAN, March 31, 1911.

R. H. CAMPBELL, Esq.,
Superintendent of Forestry,
Ottawa, Ont.

SIR,—I have the honour to submit herewith my eleventh annual report for the period dating from March 31, 1910.

The season of 1910 proved to be the most adverse that we have experienced since the inception of the work. The unfavourable conditions prevailed over an extremely large area and if possible their disastrous effects were felt even more severely in the western states than in the Canadian prairie regions.

The winter of 1909-10 was comparatively mild and with but little snow. The preceding fall had been dry, so that moisture conditions in the soil were not favourable to spring planting except on the most thoroughly cultivated lands. The season opened early with unusually warm weather, during the latter part of March, inducing a flow of sap and consequently early growth. This growing weather was unfortunately succeeded by some severe frosts, culminating in a heavy fall of snow on June 2, followed by a night frost. Previous to this snow there had been no general rain since early spring, and as a consequence newly transplanted stock had suffered heavily from dry weather conditions, which, combined with the late frosts, were particularly

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hard on the young coniferous stock freshly moved from the seed beds. Perhaps the most disastrous effect of these late frosts, from our standpoint, was the destruction of all tree blossoms. As a result it has been an impossibility to make any collections of seed of such varieties as Manitoba maple, ash, and elm. We shall feel the effect of this loss more particularly when supplying the demand for seedlings in 1912. The summer, taking the prairie provinces as a whole, was abnormally dry, southern Manitoba and southern Alberta and southwest Saskatchewan suffering most severely. In some localities a complete crop failure was experienced. Central and southern Saskatchewan fared better as regards rainfall, although the early months were very dry and as a consequence growth was considerably below the average.

The greatest injury at the nursery occurred in the case of freshly transplanted evergreens, and to a very great extent in the one year old plots elm and ash seedlings. These suffered both from drying out and from the late frosts. In the case of elms nearly 70 per cent of the seedlings were lost, and of the ash about 40 per cent. One of the hard frosts occurred just as the newly sown ash seed was germinating, thus destroying nearly 50 per cent of the stand in these plots. This will considerably reduce the stock available for distribution in 1912. The Manitoba maple seedlings, with the exception of only two plots that had to be resown, suffered but little.

In reference to the effect on the plantations throughout the west the reports of the tree planting inspectors are very much more favourable than might have been expected. So far as the older planted groves and shelter belts were concerned the drought and frosts had but little ill effect other than in reducing the average annual growth. The plantations set out in spring, however, suffered severely in the most unfavourable districts, in spite of the best handling and subsequent cultivation.

This season, above all others, has proved the undoubted benefits resulting from a thorough preparation and cultivation of the land prior to planting. Even in some of the driest districts good results followed planting on well prepared summer fallow, while trees on backsetting or even root and garden land failed entirely. Naturally the conditions of 1910 are regarded as exceptional, but the tree planter can always be safe in preparing his land to suit a dry season. The extra cultivation will pay in any case, and in a dry year will make just the difference between success and failure. The wise man will, when his conditions permit, invariably summer fallow for tree planting. There may be certain individual cases where summer fallowing is not possible, as in the case of a new settler, when backsetting must be relied upon. If this is done early in the previous season so as to get the benefit of the summer rains, and is subsequently surface cultivated at frequent intervals, good results may be confidently expected in years of average rainfall, but for very dry seasons the risk of failure on such land is great.

INSPECTION WORK.

The following members of the staff were employed on the general inspection work during the past summer: A. Mitchell, A. P. Stevenson, J. Caldwell, A. Mackintosh, W. Guiton, Jas. Kay, Jas. N. B. McDonald and William Macdonald. Brief reports from several of these inspectors are appended herewith.

The demand for stock and assistance in tree planting shows no signs of abating. The numbers of applicants on our books increases rapidly, but our facilities for providing the necessary stock cannot possibly keep pace with the demand, notwithstanding addition to the nursery station. In 1905 we had, to commence with, 160 acres; later this was increased to 320 acres, and last fall another quarter section was added, bringing the total area at the present time up to 480 acres. This is a very considerable acreage and if it could all be devoted to nursery purposes would produce an enormous quantity of stock. Unfortunately a very large portion is not well suited to nursery work, but will be particularly useful for demonstration and test planta-

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tions. A considerable portion of the quarter section just added can be used for propagating regular stock, but as it is at present virgin prairie at least two years must elapse before it can be put under seedling stock.

During the earlier years of this work we made a practice of furnishing as many trees as a man could look after and had prepared ground for, and the supply was continued each season, provided the applicant still wished to increase his plantations. Now matters are very different. It has become necessary to curtail the lists of those to receive trees in every possible manner in so far as this can be done without being unjust to any and always keeping in view the object for which this tree distribution of trees was started, namely, to encourage by practical demonstration, a more general interest in tree planting in the prairie districts. By limiting the number of trees for a single farm to what can be supplied in two seasons it is thought that enough trees can be given to set out a sufficiently large shelter belt or plantation to demonstrate the best methods of planting and the rapid results that may be realized. If the plantations are successful the farmer will then be encouraged to add to them at his own expense. In all our recent shipments it has been the policy to include a considerable proportion of such varieties as can easily be propagated from cuttings, so that the settler, when unable to obtain further supplies of stock from the department, will be in a position to take cuttings from his own trees and thus add to his wind-breaks almost indefinitely, with a minimum expense.

The number of trees available for distribution is only slightly in advance of last spring, the supply being considerably reduced owing to the extremely unfavourable conditions in late winter and early spring.

	1900.	1910.	1911.
No. of applicants on inspectors' books.....	5,723	8,318	8,036
No. of applicants to receive trees.....	2,010	3,173	3,285
No. of trees distributed.....	2,576,060	2,533,600	2,636,100
New applications.....	2,235	3,832	2,656

OFFICE WORK.

The work in the office naturally increases in proportion to the applications received. The staff this winter is the same as last year with the addition of another inspector. Outside of the usual work connected with the filing and indexing of applications and the general correspondence connected directly with the distribution work, there has been a very great increase in the number of requests for detailed information on special points connected with tree planting and the planning of farm shelter belts. From such inquiries we would judge that there is a rapidly growing tendency, on the part of the farmers in all districts, to improve the appearance of the home surroundings, not only by establishing shelter belts, but also by providing for effective, but economically laid out ornamental grounds including lawns, shrub and flower borders. We have had many requests for plans suitable for such farm grounds, and as far as possible detailed suggestions have been furnished to meet individual requirements. Many plans have been sent in by farmers showing objectionable or unsuitable features in connection with their present lay out, asking for suggestions for improving these conditions, either with the view of making the place more convenient or else more effective from an ornamental standpoint. Such inquiries are very encouraging, as they show without doubt that genuine interest in this work is increasing and that the value of tree planting on the farm is being more fully appreciated.

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	April 1. to Mar. 31, 1909-10.	April 1. to Mar. 31, 1910-11.
No of plans prepared.....	1,714	2,778
No. of pieces of mail received.....	12,447	14,492
No. of pieces of mail sent out.....	* 16,059	* 19,402
No. of new files added.....	3,902	3,969

* This does not include bulletins, these being sent out from the office at Ottawa.

EXHIBITS.

Last spring small plots were prepared and planted out on the exhibition grounds at Calgary and Brandon. A more detailed description of these plots is given in Mr. Mitchell's report. Unfortunately, owing to the abnormally dry season experienced at both these points, the results could not be considered altogether satisfactory. We hope, however, to replant these plots this spring with better success. The usual inside exhibit of enlarged photographs, &c., was made at each of these points during the summer fairs.

LECTURES.

Farm tree planting is a subject that is now receiving a considerable amount of attention at the Provincial Farmers' Institute meetings. During February and part of March Mr. Mitchell and Mr. A. P. Stevenson were engaged in this work; Mr. Mitchell in Saskatchewan and Mr. Stevenson in Saskatchewan and Alberta. I myself have attended meetings in Regina, Calgary and Winnipeg.

NURSERY WORK.

With the exception of the unfavourable weather in the spring, which resulted in the loss of a large number of one-year old ash and elm, and the freezing of a considerable proportion of the freshly germinated ash, the conditions at Indian Head, as far as precipitation during the summer is concerned, were good. All the young plants made a good growth and the seedling stock is fully as large and well rooted as in past seasons.

The area devoted to the different varieties was as follows:—

Broad Leaf:

1 year maple.....	17½ acres
2 year ash.....	13 "
2 year elms.....	5 "
1 year Caragana.....	1 "
Willow cutting stock.....	3 "
Russian poplar.....	1 "
1 year ash.....	20 "
	60½ "

Conifers:

Transplanted tamarack.....	1 acre
Transplanted evergreen conifers.....	3½ "
Conifer seed beds.....	1 "
	5½ "

Total area under nursery..... 65½ acres

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The following stock is available for distribution this spring:—

1 year maple.	1,251,100
2 year ash.	487,275
2 year elm.	34,650
1 year Caragana.	40,450
Willow cuttings.	600,000
Russian poplar cuttings.	150,000
Cottonwood seedlings (imported)	99,000
Soft maple (<i>A. dasycarpum</i>).	1,000
White birch.	1,000
Tamarack.	11,420
	<hr/>
	2,675,895

The following evergreens are also large enough for planting, and will be used for setting out in test plantations or windbreaks on the nursery:—

6 year transplanted	Colorado spruce.	8,890
5 “ “	Scotch pine.	830
5 “ “	White spruce.	800
5 “ “	Norway spruce.	1,400
4 “ “	Norway pine.	2,800
5 “ “	Balsam fir.	600
		<hr/>
Total.		15,320

Or total stock large enough for planting out of 2,691,215.

With last spring's (1910) distribution a number of Scotch pine, white spruce and Norway spruce were sent out. Reports regarding the success of these are on the whole as favourable as could be expected in view of the unfavourable weather conditions.

Tree digging was commenced on September 27 and completed October 20.

During late fall the following areas were sown:—

Ash, 20 acres at the rate of 28.5 lbs. seed per acre.

Caragana, 2 acres at the rate of 40 lbs. seed per acre.

We have sufficient maple seed of old stock on hand to sow from 10 to 12 acres in the spring.

COLLECTION OF SEED.

As far as ash, elm and maple are concerned, the seed crop was a total failure, not only in this locality, but throughout the entire west, including the Dakotas and neighbouring states; so that it was an absolute impossibility to secure any fresh crop seed.

About 80 pounds of Caragana seed was collected, partly on the nursery here, and a portion near Rosthern, a point on the Regina-Prince Albert line.

The following cones were shipped in from the different reserves and the seed extracted and cleaned here.—

White Spruce.—95 bushels. Most of these cones, however, were empty, the collectors evidently not having had enough experience in this work. Only 6 lbs. of seed was extracted.

Black Spruce.—5 bushels. 1 lb. 4 oz. extracted.

Douglas Fir.—5 bushels. 2 lb. 5 oz. extracted. These were also partially empty cones.

Bullpine.—92 bushels. 111 lbs. extracted.

Jackpine.—45 bushels. 7 lbs. 2 oz. extracted. For some reason, no matter how high the temperature, it seemed impossible to properly open these cones.

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Lodgepole Pine.—135 bushels. 60.5 lbs. seed extracted.

Scotch Pine.—3 bushels. 1 lb. 12 oz. seed extracted.

These cones were picked from trees about 25 years old, growing on Mr. A. R. Stevenson's farm in southern Manitoba. It will be interesting to note whether any difference will be apparent, regarding the hardness of the seedlings as compared with stock propagated from the European seed.

CONIFERS.

Seed Beds.—Some 6,200 square feet of new seed beds were sown last spring, composed chiefly of Scotch, jack and lodgepole pine, white spruce and tamarack.

Transplants.—The transplants suffered very heavily this season, owing to the dry weather and strong winds, coupled with heavy night frosts during and immediately after planting.

The following seedlings were set out, all two year old stock:—

Scotch pine.....	53,378
Lodgepole pine.....	36,791
Jackpine.....	24,609
White spruce.....	102,226
Siberian larch.....	5,800
Tamarack.....	11,300
Colorado spruce.....	7,992
Total.....	242,096
	<hr/> 242,096

Of these the Scotch pine suffered most. They were the last to be set out and experienced a very severe frost immediately after planting before they had any chance to recover from the shock of moving. The tamarack and jackpines suffered least, only a small percentage of these failing; these were set out very early and had a chance to get partially established before the most severe frosts.

The white spruce was rather badly damaged, all the new growth was frozen on June 1. This was also the case with the older transplants and the established trees in different parts of the nursery. None of the other varieties were at all injured in this way, though the pines at the same time had a soft new growth of 2 to 3 inches.

The Norway spruce and Colorado spruce also escaped as they had not at this date started into new growth.

The white spruce that were frozen made no new growth during the season, consequently a large stock of older transplants which otherwise would have been ready for shipping this spring will have to be carried over till 1912. An unusually stocky lot of plants should, however, result from this freezing.

The Siberian larch are difficult to handle as they commence to bud very early in the spring, almost before the ground is fit to move them. They do not stand transplanting if the new growth is at all advanced.

Some 60,000 older transplants of Scotch pine, white spruce and Norway spruce were dug and distributed as before mentioned.

PERMANENT PLANTATIONS.

The growth in all the older plantations was very good. Some of these plantations are now of considerable height, the earliest plantings having been made in 1904. Among the conifers the larch, white spruce and Scotch pine, all of which varieties have been extensively planted, are showing splendid results. It is hoped to make accurate measurements in these plots this season, which will be interesting in show-

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ing not only the actual development of the individual trees but the relative rates of growth of the different varieties under practically similar conditions.

Among the broad leaf plots the Russian poplar plantation at present shows the most rapid development, a mixed planting of maple and cottonwood in alternate rows being almost as high. The elm and ash planted at the same time (1906) have made only about half the growth.

The native white birch is proving a very rapid grower in the mixed plantations.

A point of considerable interest is demonstrated in the comparison of two adjoining one-acre-plots. These were set out in 1906, the trees four feet apart each way. One plot is pure cottonwood, the other cottonwood and maple in alternate rows. The soil is good clay loam on level ground. These plots were established with a view to demonstrating the advisability of setting out a pure planting of cottonwood on upland prairie; though it was hardly expected that bad results would be apparent so soon after planting. Both plots received the same treatment as regards cultivation, but there is no comparison as to the value of the two plantations even now. The average height of both plots is about the same, namely: about 13 feet, but the pure planting of cottonwood is very open and the soil covered with a thick growth of weeds and grass, many of the trees have died out and the plantation as a whole has a poor appearance. Where the cottonwoods are mixed with maple, however, the trees appear much stronger, the ground is well covered and but little grass or weeds can be seen. It is a well known fact that the light-demanding trees, such as poplars, ash, birch, &c., do not thrive or develop to best advantage in pure plantations as they do not form a dense enough shade to check soil evaporation or choke out a growth of grass and weeds. Such trees should only be planted in mixture with a shade-bearing variety. The only tree of this class that we have which can be extensively used in prairie plantations is the Manitoba maple. This is the chief reason why such a large proportion of the seedlings sent out from the nursery station are of this variety.

In the Saskatoon district some fair sized plantations of pure Russian poplar were set out eight or ten years ago. These also now show the ill-effects of pure planting; while in the same district old plantations of mixed Russian poplar and maple appear to be in thriving condition.

Nineteen and a half acres of new permanent plantings were set out this season (1910). Among these plantations was included a four-acre plot of Norway spruce mixed with caragana, spaced 4 feet x 3 feet 6 inches. The spruce were 5-year transplants grown from seed on the nursery station. Although the planting season was not favourable but very few of these spruce failed to live. It will be interesting to note the development of this plantation, as this variety has never been extensively planted in the west.

This spring (1911) about 9 additional acres will be set out, mostly to Colorado spruce and Norway or red pine in mixture with caragana. The red pine as far as we can learn has not been tested at all in prairie plantations and perhaps may not prove hardy when fully exposed, though in the seed beds and transplant rows the young plants have made a good strong growth and have shown no sign of winter injury.

VARIETY PLOTS.

The following new plots were planted:—

Norway spruce—(*Picea excelsa*).

Norway spruce—Variety—(*P. excelsa septentrionalis*).

Engelmann spruce—(*Picea engelmannia*).

Western white pine—(*Pinus flexilis*).

Norway or red pine—(*Pinus resinosa*).

Bullpine—(*Pinus ponderosa*).

Douglas fir—(*Pseudotsuga douglasii*).

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These plots, however, were not very successful, owing to unfavourable conditions at planting time.

ORNAMENTAL GROUNDS AND SHRUBBERY.

All early flowering shrubs and perennials were a failure this season as far as blossoming is concerned, the late spring frosts killing all undeveloped flowers. The later blooming shrubs and perennials, however, made a good show, notwithstanding the hot and rather dry summer. The most effective low shrub we have is the single, red, Japanese Rugosa rose. Although these were frozen to the roots in the spring they sprang up again quickly and bloomed very freely during the late summer and fall. The grounds are developing well, the grass lawns showing a particularly fine matted turf. In the shrub borders some thinning was done in order to allow a freer development of the remaining specimens.

PLOUGHING AND FARM WORK.

Thirty acres of breaking and backsetting were turned over this season. This completes the breaking on the northwest quarter added to the nursery in 1907, so that all the available land on the north half of this section is now under cultivation. The southwest quarter, which was added to the nursery in July, has been inclosed with a good panel wire fencing on cedar posts. This quarter has a heavy growth of wolf willow and poplar scrub; about 50 acres of this was cleared off ready for breaking this summer (1911). 30 to 40 acres of summer fallow and from 20 to 30 acres of other ploughing in the nursery plots was done; 20 acres were put into oats, from which about 1,500 bushels were harvested; 8 acres were seeded down to rye grass for hay.

SOME CHANGES.

A rather important change in connection with the distribution has been decided upon to take effect in the spring of 1912. Up to the present time the department has borne the expense of transportation of the trees from Indian Head to the applicant's nearest express station. This cost will, on and after 1912, be paid by the applicant receiving the trees. The chief reason for this change was owing to the fact of so many complaints being received here of the non-delivery of trees at destination or undue delay during transit. At many points it appears that the agents of the express companies were careless in regard to notifying the consignee upon arrival of the trees, and as a consequence several shipments were reported dried out owing to delay in delivery. It is hoped that when the shipments are not prepaid the express agents will be more prompt to make delivery, and should the trees be delayed in transit the consignee can refuse delivery and the company would then lose transportation charges. The individual charge on such shipment is small, amounting to an average of perhaps 50 or 60 cents, and no farmer can look upon the payment of such a sum as a hardship, covering as it does from 600 to 1,000 or more trees. To the department, however, the aggregate amounts to a considerable figure. Last year our express charges were \$2,000. Such a sum could well be spent on further developing the work along more productive lines.

Another change, or rather development, decided upon is in connection with the proposed distribution of coniferous evergreens. Such varieties as native spruce, jackpine, Scotch pine and other promising kinds are to be propagated for distribution in limited numbers. These are to be given out at a nominal cost of \$1 per 100 for 4 and 5 year old transplants of a suitable size for permanent planting, no applicant to receive more than 500 and not less than 100. These evergreens will be supplied only to bona fide farmers for planting on their farms, and each applicant will be required to make an affidavit to that effect, and also that the young plants will not subsequently be sold as nursery stock. There is a very large inquiry for evergreens at the present

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time, and as this is the class of tree most suitable for windbreaks under our conditions, it is hoped to encourage this planting to some extent by such a distribution. But very limited stocks of evergreens are propagated by the commercial nurseries in the west and the average farmer cannot afford to purchase more than a few specimens, at the current prices, which does not permit the setting out of a closely planted windbreak, which would be of inestimable value on the farm.

Your obedient servant,

NORMAN M. ROSS.

No. 14.

REPORT OF ARCH. MITCHELL, ASSISTANT IN TREE PLANTING DIVISION.

FOREST NURSERY STATION,

INDIAN HEAD, SASKATCHEWAN, March 9, 1911.

R. H. CAMPBELL, Esq.,
Superintendent of Forestry,
Ottawa, Ont.

SIR,—I have the honour herewith to submit my third report as assistant in the Tree Planting Division of the Forestry Branch.

After finishing the office work in connection with the distribution of trees from the nursery, I went on May 5 to Calgary to plant the demonstration plot in Victoria Park, the exhibition grounds there. The main plot is situated at the entrance to the grounds, and will be seen by every one who comes to the exhibition, and cannot fail to be beneficial to the country as an object lesson in prairie planting. It consists of both deciduous and evergreen trees suitable for that portion of Alberta, and arranged so as to demonstrate the best methods of mixing the varieties. There are besides, seed beds of maple and ash, and of the conifers likely to succeed on the prairie, and also cutting beds of willow and Russian poplar.

The whole has been well fenced by the corporation, and the plantation will no doubt in time be very useful in demonstrating what can be done in the way of tree planting on the prairie.

Besides the main demonstration plot, there are two other smaller ones illustrating the grouping of hardy shrubs and perennial flowers. This is a subject very few people know much about, and no planting demonstration is more necessary than this in Alberta.

After finishing this planting I went about a week with a new inspector, Mr. W. Macdonald, down the Soo line, to give him some idea of the actual work in the field. About June 25, I went again to Calgary to take charge of the forestry exhibit at the fair there. This was similar to last year and created a great deal of interest. After Calgary, I went to the Brandon exhibition as in previous years. This year the Brandon exhibit has also been improved by the addition of two demonstration plots in the grounds close by the building, in which the forestry exhibit is held. One of these is used to demonstrate methods of propagation, and consists of seed beds of conifers, maple and ash, and cutting beds of willow and Russian poplar. The larger plot is really a test of various conifers as well as a demonstration. The trees are arranged in irregular groups with a curved walk passing through the plot to admit of their being studied, and the arrangement will no doubt in time be of much interest to the visitors at the exhibition and of value to the province.

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After Brandon I entered on my usual inspection trips. My district this year was along the Grank Trunk Pacific in Saskatchewan and Alberta, and the Pheasant Hills branch of the Canadian Pacific railway, west of Saskatoon, as far as Cadogan, Alberta.

There were 537 men on my list, and of these 253 will get trees in 1911, making a percentage of 47 who had land ready for planting. This is a little less than last year, and the slight decrease may be safely ascribed to the very dry season, which tended to cripple the farmer's resources and induced him to postpone his planting operations.

The prosperity of a locality has usually a very direct influence in stimulating tree planting.

The planting conditions of 1910 were without a doubt the worst ever experienced in the history of the Planting Division. Spring opened early, but was followed by a sharp freeze, which delayed packing quite considerably, and this was followed by a rapid thaw, and when the young leaves were beginning to appear, a succession of heavy frosts destroyed them. To cap these unusually untoward conditions, the driest summer on record over the greater part of the country followed.

The percentage of living trees in the 1910 plantations is consequently considerably lower than other years, and yet, considering a season when very little else than the trees grew in many localities, it was wonderful.

Among deciduous species the percentages were: Maple, 71 per cent; ash, 76 per cent; elm, 87 per cent; cottonwood, 8½ per cent; willow, 65 per cent; Russian poplar, 49 per cent.

The elms were probably the best ever sent out by the forestry branch, and yet only 87 per cent were living. In a normal year it would have been 97 per cent or over. The cottonwoods did very badly, but fortunately the number sent out was not very great, only about 10 per cent of the whole.

Quite a percentage of the willow and Russian poplar cuttings failed to strike, but this was possibly attributable in many cases to faulty planting as much as to the dry weather. Instead of planting cuttings deeply in the ground and leaving about an inch sticking out of it as directed in the printed instruction sent them, some men seemed to read the directions the reverse way, and planted the cuttings about two inches in the ground, leaving five or six inches sticking out. Loose planting, too, had a good deal to do with keeping down the percentage.

Quite a number of conifers were sent out this spring, and it is unfortunate that the first trial distribution should have been in such a dry season. They were sent only to men who had already succeeded well with their deciduous plantations, and who could consequently be expected to plant and take good care of the trees. They thus were cared for just as well as could be looked for in such a widespread distribution. The jackpines and tamaracks probably suffered more than the others, as they are the first to commence growth.

The following is the percentage of living trees among the conifers:—Tamarack, 47 per cent; Scotch pine, 61 per cent; white spruce, 68 per cent. A very small quantity of Norway spruce was distributed, and very few of them were in my district, but 100 per cent were living. The Norway spruce usually has a good root system, and bears transplanting well, and of course a good deal depends on the planter.

I returned to the office on October 28. On November 28, I took part in a series of institute meetings west of Saskatoon, in connection with the extension work of the University of Saskatchewan. There were nine meetings altogether, and the attendance was very good, and a good deal of interest was manifested in tree planting and kindred subjects.

Your obedient servant,

ARCH. MITCHELL,

Assistant in Tree Planting Division.

No. 15.

REPORT OF A. P. STEVENSON.

DUNSTON, MANITOBA. February 1, 1911.

R. H. CAMPBELL, Esq.,
Superintendent of Forestry,
Ottawa, Ont.

SIR,—I have the honour to submit the following brief report on my work as tree planting inspector in connection with the work carried on in Manitoba by the Forestry Branch of the Department of the Interior during the season of 1910.

On June 1, I visited the Forest Nursery Station, Indian Head, Saskatchewan, to see Mr. Ross and discuss with him the lay out and management of the inspection work in my district for the coming season and also to receive lists of persons to be visited, together with writing case and all necessary papers used in connection with the work. It was also a great pleasure while there to note the valuable work being carried on at the Forest Nursery Station, in the way of object lessons, in the testing and growing of all the hardy varieties of trees, in order to prove their suitability for western conditions. Without doubt it is an inspiration to the inspectors and will encourage them in their work of instruction and inspection among the people during the summer.

Inspection work commenced on June 4. This was ten days earlier than in previous years and was found necessary on account of the very early spring and the increased number of persons on the list furnished to be visited during the season.

The winter of 1909-10 was a fairly average one, with rather less than the usual amount of excessive cold weather. In the southern part of the province of Manitoba the snowfall was light and on this account a considerable amount of killing back was noticed among the trees that were planted out the previous year, especially on knolls or high locations that were exposed to the full force of the wind.

Where a fair depth of snow lay no injury was noticeable, showing conclusively the great benefit a good covering of snow is to young plantations of trees, and in fact to everything of a perennial nature planted in the ground in this country.

Conditions were just right in spring for the planting of young trees, everything looked favourable and during the early part of June I never saw the young plantations looking better, but dry weather set in about the middle of the month and continued almost unbroken for three months.

The district assigned to me for the inspection of tree plantations was the Canadian Pacific main line in Manitoba, and all south of that to the international boundary. The Canadian Pacific Pembina branch and the Carman-Hartney sections suffered most from drought. To the north of these lines conditions as to rainfall gradually improved.

On the Canadian Pacific Pembina Branch and Canadian Northern Carman-Hartney sections I would estimate that barely 50 per cent of all the trees set out, spring of 1910, are alive at the present time.

On the Glenboro' branch 65 per cent are alive, on the Canadian Pacific main line 75 per cent are doing well, and when the conditions as to rainfall are considered this showing is remarkably good and could only be accomplished when trees were planted in well prepared land.

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Maple were the best drought resisters, and cottonwood the worst. The drought appeared to have no injurious effect on trees set out in previous years, well established plantations showing as good results as to growth and vigour as in previous years. Insect pests were scarce and did no damage worth noticing. Even the vagabond gall, so troublesome in other years on the cottonwood, was entirely absent.

The care and attention given the young plantations during the past season are fully equal to that of any other year, and planters are realizing as never before how necessary it is to have their land thoroughly prepared before planting, and years of experience in inspecting forest tree plantations under almost every condition have only deepened the conviction that this is one, if not the main, essential to the successful growing of trees on the prairie.

We find the Russian willow to be still growing in favour, its quick, sturdy, vigorous growth, when thoroughly established, being very much in its favour. Too shallow planting is often the cause of considerable loss with this tree, more than with some other varieties, on account of its being usually propagated by cuttings, and the advice has to be repeated time and again as to the necessity of sinking the cutting deeply into the ground so that only one bud is left exposed.

Occasional inquiries were also made, in the newer districts, about the Russian poplar. I strongly advise against the planting of this tree in southern Manitoba, principally on account of its liability to disease. On the other hand I notice it is doing well in some parts of Saskatchewan, being so far exempt from disease. Where this condition exists the tree is well worth planting where quick results are desired, as it is certainly the hardiest quick growing variety we know of.

I notice also the increasing interest taken by our tree planters in the laying out and growing of a snow-break in connection with their shelter belt proper. The necessity for a snow-break becomes more and more evident as the trees in the shelter belt grow older, and the danger increases of their liability to be injured and broken down by heavy snowdrifts among the trees. Russian willows are perhaps the trees best adapted for the purpose of a snow-break, on account of their tough, pliable limbs bending under the weight of snow.

The number of applicants on my list to be visited during the season was 640 and of these 200 were persons applying for the first time to get trees.

All inspection work for the year was completed by November 16. During parts of the months of November and December, 1910, and January, 1911, a series of Farmers' Institute meetings were addressed in the province of Saskatchewan. The meetings were all held in the prairie districts of the province. A series of Farmers' Institute meetings will also be held in the province of Alberta during the month of February, at which I will speak. At all these meetings the subjects dealt with are the outlining and explaining of the co-operative tree planting scheme of the Forestry Branch, the proper preparation of the soil before planting trees, their proper management after planting, right distance of trees from buildings, and all further advice that may be necessary for the successful growing of a tree plantation on the prairie.

Your obedient servant,

A. P. STEVENSON.

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No. 16.

REPORT OF ANGUS MACKINTOSH, TREE PLANTING INSPECTOR.

HEADLANDS, SASKATCHEWAN, December 26, 1911.

R. H. CAMPBELL, Esq.,
Superintendent of Forestry,
Ottawa, Ont.

SIR,—I have the honour to submit to you a brief report on the tree planting inspection work with which you intrusted me in 1910.

The territory allotted to me was that intersected by the Pheasant Hills branch of the Canadian Pacific railway from Kirkella to Saskatoon, and the Prince Albert railway from Saskatoon to Regina. I had about 680 names on the lists given me and I began work on June 7 and finished on November 7.

I found that quite a number of the plantations between McAuley and Tantallon were injured by the severity of the previous winter, but as the trees were not killed outright most of them will spring from the ground again. There were also a good many failures amongst the trees planted out in that district last spring, mainly on account of the dry state of the soil at the time of planting, and lack of rain after. As I worked westward, however, matters began to improve, and both the old and young plantations looked better. That satisfactory state of things continued until I got to the northeast side of the Last Mountain lake, when short crops and many failures amongst the last planted trees again told their tale of lack of rain. The country from there to Saskatoon, and from Saskatoon to Chamberlain also suffered more or less from drought, and the percentage of failures amongst the young trees was larger than usual. I estimate the average loss amongst the trees planted last spring, over the territory that I inspected, at 12 per cent. In places it was more; in other places less. I may here remark that the failures would have been fewer if all the recipients removed the trees from the railway stations on their arrival there, and either planted them right away or heeled the bundles into the ground and watered them, instead of allowing them to lie for days at the railway, and after that putting the packages unopened into cellars or outhouses until a convenient time for planting presented itself. The largest percentage of failures was amongst the cottonwoods, and next amongst the elms, maples, and willow cuttings. The ash with its tufty fibrous roots came out best.

The older plantations, excepting those already referred to in the eastern part of my territory, stood the winter well, and cases of cutting back or killing by the storms were few and far between.

To the delight of quite a number of the best tree-planters on our lists, a few conifers were distributed this year; but I am sorry to say the failures amongst them have been many. About 50 per cent of the tamarack and 35 per cent of the spruce and pines failed. The failures amongst the former are doubtless partly due to the trees having come direct from the swamps of Manitoba, and therefore did not have the fibrous roots of nursery raised trees; while the failures amongst the spruce and pine may be partly attributable to the planters who handled them as if they were the deciduous trees they had been accustomed to get. A few minutes' exposure of the roots of conifers to a hot sun or drying wind is the death of them and I think that some, at least, of the trees distributed have been lost in that way. Then, the drought in many cases was detrimental. I have tried to impress upon the recipients the necessity of great care, and I hope the next lot distributed will fare better.

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It gives me pleasure to be able to give a very favourable report of the progress the plantations that were made four, five and six years ago are making. They have not got hardened and acclimatized to their bleak and storm swept surroundings, and although the annual growth may not be so great or marked as in the case of younger trees, there is no headway lost. Many of them are now attractive features of landscapes much in want of the attractiveness that only trees can give to bleak and bare places. But much remains to be done yet before the homes of the settlers shall all have as their setting even a fringe of trees.

Your obedient servant,

ANGUS MACKINTOSH.

No. 17.

REPORT OF WALTER B. GUITON.

FOREST NURSERY STATION,

INDIAN HEAD, SASKATCHEWAN, March 9, 1911.

R. H. CAMPBELL, Esq.,
Superintendent of Forestry,
Ottawa, Ont.

SIR,—I have the honour to submit to you my fourth annual report of tree planting inspection work as carried on through the co-operation of the Forestry Branch, Department of the Interior.

Since sending in my last report, I have been employed during the winter in the general routine of office work until March 28, when I went out to the forestry station to assist with the planting and the general spring distribution of trees until June 1, when I commenced inspection work.

The districts assigned to me were: Main line Canadian Pacific railway, from Regina west to Maple creek; Crowsnest line, Seven Persons to Cowley; Alberta irrigation lines, Stirling to Cardston, and New Dayton to Coutts, Alberta.

There were 1,099 applicants on my lists to visit this summer; 600 were new applicants, 347 of whom will receive trees. The others will be carried over another year, thus allowing them more time to cultivate their ground. The total number of both old and new applicants to receive trees in the spring of 1911 will be 577. The total number of trees recommended by me this year was 577,100, but owing to the scarcity of stock this has been reduced to 423,750, thus bringing the average of trees per man to about 750.

The idea of the applicant raising his own trees from cuttings and seed, was advocated this summer, and met with the approval of many.

On June 1, I commenced my tour of inspection at Pense on the Canadian Pacific railway main line. About this time we had an exceptionally heavy snowfall which seriously retarded the progress of the already well advanced tree growth. The tender shoots of young seedlings were slightly frozen, but this setback has apparently not injured the young trees to any great extent. I found the trees which had been planted several years doing exceedingly well, and shading the ground sufficiently to prevent a vigorous growth of weeds, which are such a menace to the younger plantations.

The conifers, especially the Scotch pine, have done very well in this district where instructions have been followed regarding the shading of plants until they recovered from the strain of transportation and replanting. From Grand Coulee to Pasqua the tamarack or larch were, when seen, very brown, but hopes were expressed at that time for another growth. The plantations already planted were one continuous example of the good work of the Tree Planting Division. Amongst this year's plant-

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ings, I noticed repeatedly, cases where willow cuttings had been planted too shallow, with a consequent poor result. That the willow cuttings when properly planted will afford in a short space of time a splendid protection for the other trees when planted on the outside edge, is already illustrated in many places along my route. In the district from Morse to Moosejaw and extending 70 miles south, the country is quite bare of timber. There are places, however, where the efforts of settlers in the direction of tree planting are a pronounced success, provided the trees are suitably protected from stock, and the trees thoroughly cultivated between the rows during the growing season.

The remaining districts in Saskatchewan were from Swift Current to Maple creek. Here I found conditions altogether different from those in the districts already mentioned. Lack of rainfall accounted for a number of failures, but shallow planting was one of the chief causes.

On August 12, I commenced inspection work in Alberta at Seven Persons. This district, as in all parts of Southern Alberta, suffered to a large extent from drought. The trees planted in previous seasons have stood the winter well, but the growth this year has not been so good as in former years, averaging from 6 to 12 inches. Trees, like other crops in Alberta, suffered from lack of rainfall, but where planted on well worked summer fallow, the percentage of failures was small, illustrating what can be done even with a minimum of rainfall.

The coniferous trees did not stand the transplanting and rough treatment to which many of them were subjected. From lack of knowledge of these particular trees, they were frequently exposed to sun and wind when planted, but the chief cause of failure seems to have been in the process of planting, from allowing the roots to dry out, and this with coniferous trees does not take many minutes.

At Lethbridge, plantations are grown under two systems, namely, cultivation and irrigation, and while under the influence of the latter method trees are encouraged to make a larger annual growth, it has been the aim of the forestry branch to direct efforts towards raising trees by methods of cultivation for conserving moisture, rather than under irrigation. The results have justified these efforts in demonstrating that trees can be grown successfully in this district, and are not so liable to kill back during the winter. It had been found advisable by those following the irrigation method to turn off the flow of water during the second week in July, in order to allow sufficient time for the season's growth to ripen up before the frost comes. The land is irrigated again the last thing in the fall, so that it may freeze solid and lessen danger from winter evaporation.

The Mormon settlers, south of Lethbridge between Stirling and Cardston, have planted trees around their towns for a number of years, and many of these are now from 15 to 18 feet high. Behind them shelter many small plants such as gooseberries, raspberries and currants; even apples have been grown successfully for a number of years. The irrigation method is principally followed here.

A mistake often made by planters is that they would like to plant only fast growing trees such as Russian poplar, cottonwood and Russian willow. The advantage of having a good percentage of the more valuable but slower growing species is not yet fully appreciated.

This concluded my tour of inspection, and from close observation it is apparent that farmers already realize that the problem of affording suitable protection for house, buildings and stock from the bleak winds and heavy snowstorms of the prairie, besides providing a future asset in the matter of a home grown supply of fence posts and fuel, is easily solved with a little care and attention in the direction of tree planting. The trees, however, must not be planted too close to the buildings, and should be at least 40 to 50 yards away; the greater the number of rows planted, the sooner will forest conditions prevail.

Your obedient servant,

WALTER B. GUITON.

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No. 18.

REPORT OF JAMES KAY.

FOREST NURSERY STATION,

INDIAN HEAD, SASKATCHEWAN, March 9, 1911.

R. H. CAMPBELL, Esq.,

Superintendent of Forestry.

Ottawa, Ont.

SIR,—I have the honour to submit my third annual report on my work as inspector of plantations with the Forestry Department.

On returning in the fall from inspection work I at once commenced work in the forestry office. Later, I assisted with the packing and distribution of trees, after which I helped in planting out trees in the demonstration areas in the nursery.

I started inspection work on June 1, finishing on November 4. The district assigned to me was the Canadian Pacific railway, Yorkton branch from Portage la Prairie to Jansen; the main line Canadian Northern railway from Gladstone to Lloydminster; the Prince Albert branch, including the Swau river district and the Goose lake branch from Saskatoon to Alsask.

Last year (1909) the number of applicants on my list numbered 854; of these 510 received trees to the number of 410,600. This year (1910) the number of applicants totalled 879, of whom 522 are to receive 382,500 trees.

I commenced inspection work at Portage la Prairie, Manitoba, working the Canadian Pacific railway, Yorkton branch to Jansen. Along this branch I found the old and new plantations doing well, and in most cases well cared for, and combined with ample moisture, good growth had been the result.

On the Canadian Northern railway main line from Gladstone to Lloydminster the trees did fairly well. From Gladstone to Humboldt there was ample moisture for plant growth and the plantations made good progress. From Humboldt to Warman the season was dry and plant growth was not so vigorous. From Warman to Battleford more satisfactory conditions prevailed. From Battleford to Lloydminster drought was again in evidence, but even in the dry stretches of the country the newly set out plantations held their own and made headway.

The older plantations, owing, no doubt, to their deeper root systems, suffered very little. On the Canadian Northern railway main line and the Prince Albert branch north, round by Melfort and Tisdale, I found Indian or sweet grass to be the worst enemy of the plantations. The grass is very common in the northern parts of the country. The higher rainfall, no doubt, encourages its growth to a certain extent; wrong methods of breaking and improper cultivation afterwards being the cause of its continued presence in the plantations.

I therefore gave no trees for backsetting in the north country owing to this cause, advising a thorough tillage of the soil for another year before any planting was done. To insure success and save future trouble it is absolutely necessary to get rid of this grass before planting. Working up the land infested with sweet grass with a cultivator after planting only aggravates the evil as it breaks up the rhizome or underground stems and spreads them all over and through the soil. Digging it out with a fork or mulching are the only practical remedies to use after the plants are set out. It should be carefully watched the first year; it generally appears in small patches; these should be forked out and all parts of the grass carefully removed, as the smallest piece will grow if left in the soil.

On the Goose lake branch of the Canadian Northern railway, trees have almost without exception done remarkably well. Some fine plantations are to be seen around the country adjacent to this line. From Rosetown to Alsask on this branch the country is just being settled up; all the applicants in this part are new. It is a bare country and from the interest manifested in the work of tree planting there will probably be a large demand in the near future for trees from this part of the country.

Little fault could be found with the setting out of the young plants, willow and poplar cuttings being the only exceptions. These were, in a large number of cases, too shallow planted. Various excuses were given for this, but the only inference that could be drawn from them was that the spade is the best implement to use in setting out cuttings and tap rooted plants. Some planters used dibbles so thick that they had to be driven into the soil with a weight; hence, the cuttings were loose and shallow planted, the soil only being in contact with the cutting at the ground line. The result was that many failed to strike root, or, if they did so, died off eventually as the cuttings had too little sap remaining to support a permanent supply of roots and leaves.

Cuttings that appear to have rooted perfectly, frequently die off in light loose soils in the height or in the autumn of the first year. The reason for this is that in the early part of the season adventitious roots appear both upon the cortex and the callus of the cutting, and when the upper layers of the light loose soil dry up, the greater portion of the roots on the cortex, most of which are disposed horizontally, die off; that is, the tender rootlets nearest the surface shrivel up. When this is the case it often happens in the height of summer with a limited rainfall and great heat, that the roots which have originated in the callus of the wound, and which always penetrate the soil obliquely, are unable to supply water to satisfy the wants of the leafy shoots, which consequently wither.

In planting cuttings it is advisable to plant them with a slant, leaving just one end above the surface, (as it is most essential to restrict evaporation from the cutting till it has an abundant supply of roots), to allow the plant to settle with the soil and render it more easily tramped and firmed; but care should be taken to see that the slant is not exaggerated, for if the cutting is brought too near the surface it will probably die off even after it has apparently become well established.

Maple and cottonwood have done well; the maple in all parts of my district. The cottonwood seems to have its limits as regards latitude. Too far north the texture of the wood is evidently too open to resist our early winter frosts. It does not ripen up the new growth early enough, and is therefore liable to be frozen back, with the consequent tendency to assume a bushy habit of growth. The fact of the stock coming from south of the boundary line may have something to do with this.

I saw many young cottonwood on the banks and sandbars of the North Saskatchewan river, much further north. They looked healthy and thriving enough, and I advised the planters in the vicinity to dig these plants up and use them for their plantations. They could get them in all sizes and quite easily, and much planting could be done in this way. Many people, no doubt, only require to have this pointed out to them to avail themselves of such material. Some have the impression that these plants and any seed of maple and ash growing in the locality are inferior and not worth troubling about, and many besides are often quite unaware that there is any such plant material near them.

Ash and elm have done well, and are giving satisfaction, the percentage of trees living being very high. It is gratifying to note that these trees find favour with an increasing number of planters. Willows and Russian poplars have done well when properly planted, but it is to be regretted that much slack planting is in evidence. It is highly important for several reasons that these plants should have a large place in prairie planting, for example, owing to ease of propagation, quick

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growth, and, at least in the case of the willow, for the toughness of their branches in resisting snowbreak, which render them invaluable for the outside of plantations.

The question of pruning is perennial; it is cropping up all the time, but when the bad effects of pruning trees in a shelter belt are pointed out the planter admits the error of it. Still, much judicious pruning could be done in the way of removing badly situated branches which would eventually break off from the weight of the snow, leaving ugly wounds. As this only means the removal of a few branches in the plantation, it does not materially affect the soil cover. Branches removed from poplar or willow can be planted as cuttings.

Another matter requiring attention is planting too near the edge of the sod. The outside row of trees never makes the best growth when planted too near the sod. Besides, weeds and grasses, such as brome grass and sweet grass, gain an easy entrance into the plantation. Three or four feet should be allowed, as this width gives a horse and cultivator ample room to run between the fence and plantation.

Owing, no doubt, to heavy rain in the beginning of September, which caused a late autumn growth, many maples and cottonwood were caught by an early fall frost and nipped back.

Injuries from insect pests in my district were practically nil, no serious injury having occurred. Attacks from fungoid diseases were also slight. I found maple and cottonwood in the Yorkton and Saltcoats district (principally cottonwood) attacked with coral spot disease (*nectria cinnabarina*), and I advised the owners to cut off the diseased portions and burn them. As this is a disease which, as a rule, only attacks soft wooded species, ash and elm are unlikely to suffer from it.

Evergreens sent out this spring (1910) have in nearly all cases been well planted and carefully attended to after planting. They have done as well as could be hoped for with such a dry season. The tamarack had the lowest percentage living. Most of the other varieties did well, but results will show up better next year.

On reviewing results, the care given the plantations, the percentage living and doing well, with the increasing interest taken in tree planting, go to show that this work is being appreciated very fully throughout the country.

Your obedient servant,

JAMES KAY.

No. 19.

REPORT OF JAMES N. B. MACDONALD.

FOREST NURSERY STATION,

INDIAN HEAD, SASKATCHEWAN, January 20, 1911.

R. H. CAMPBELL, Esq.,

Superintendent of Forestry,
Ottawa, Ont.

SIR,—I have the honour to submit the following report of my third year's work as plantation inspector in connection with the tree planting division of the Forestry Branch.

After spending the winter in the office, I assisted with the spring work in the nursery; the shipping of plants to the different districts, and the usual planting and other work in the nursery grounds.

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I started inspecting the plantations on June 1, my district being in Alberta the same as the preceding years, viz.: Canadian Pacific railway main line from Walsh to Cochrane, with Langdon-Acme branch; the Calgary-Macleod line to Granum; the Calgary-Edmonton line with Lacombe and Wetaskiwin branches, and the Canadian Northern railway line from Edmonton to Kitscoty.

The number of places to be visited on my list was 989 and of these 492 are to receive plants next spring. The average number of trees allowed each man is 725, making a total of 341,600 trees. This number would have been much greater if enough trees had been available to supply all the land prepared, as a good many men had land ready for 2,000 to 5,000 trees.

I found the plants of 1910 suffering badly from drought in Medicine Hat district; many of these had made no start at all in June. Plants put in shallow were all dried out, especially where the land had been deeply ploughed in spring to prepare for trees. This is contrary to our instructions and the printed bulletins which call for all ploughing to be done the season before planting; merely harrowing the ground in spring to conserve moisture and kill germinated weed seeds.

Great interest is taken in the work by the new settlers west of Medicine Hat, as the country is quite treeless. I found most of the ground applied for there, in good cultivation by the middle of June, having been broken early and backset.

Owing to the new railway lines not being opened, a large tract of this country lying east of the Red Deer river and 120 miles north to the Stettler district has not yet been visited. It is expected, however, that by the summer of 1911 two of these lines may be opened.

Several of the older places round Medicine Hat were setback badly with frosts in May and June, which caught cottonwood and maple, bursting into leaf two or three times in succession. The ash was untouched, being very late coming into leaf in that district this season. Such killing back, however, does not hurt a plantation permanently, as the root system is always developing and a shorter, firmer growth is established among the quicker growing species.

Some of the best plantations in my district are round Gleichen. All the trees do well if cultivated; most of the cottonwood now standing eight feet high with only three years growth. This is without irrigation.

The Canadian Pacific irrigation system supplies this country and water is now used in a good many of the young plantations with good results. The best plot I saw planted in 1910 was in this district. It is necessary, however, to give the ordinary amount of cultivation as well as irrigation.

There is a large increase in the number of applicants in Strathmore and Langdon districts; 41 are to be supplied with plants next spring while only 8 received plants in 1910.

As this part of Alberta is treeless for more than 150 miles square, the settlers seem to value the trees very highly and no doubt quite a number of good plantations will soon be seen in this district. Native willow and balsam of poplar are already showing along the irrigation ditches from seed blown into the river and carried along the lateral canals.

I found conditions similar on the Calgary-Macleod line. The young plants of 1910 suffered much from lack of rain, but the older plantations were much better. They came through the winter well, starting fresh growths from the tips, and that had a marked effect where grass and weeds had gained some hold in the older groves. Many, especially the maple, seemed to have mastered the rank, objectionable growth with their dense foliage in early summer.

I was pleased to find that trees came through the winter well in the Airdrie and Crossfield districts. Several of the older places looked well, as there was very little winter killing and growth was good despite the dry season. Trees in this district have been badly killed back in previous years, especially cottonwood.

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The policy of the planting division in the last two years has been to substitute the cottonwood with Russian poplar, and I was particularly pleased to find them doing so well. Further east from range 24 to the Red Deer river the trees are fine. A few of the groves can be seen for miles and are already giving good shelter.

Trees do well on the Lacombe branch extending east to Castor district. The young plants suffered from drought but the plantations of 1909 and earlier years were most satisfactory.

Conditions were also good on the Wetaskiwin branch, although the eastern part suffered from drought. There is more native bush along this line, and planting is not encouraged except in the open country. Fires have destroyed large tracts of native bluff since I travelled this part in 1909, changing the appearance of the country greatly. This is much to be regretted as this part of the country is being rapidly settled and the demand for fence posts, fuel and poles for many purposes is already large, not to speak of the shelter afforded by several good bluffs on a farm.

The young growth is very rapid after a fire, averaging two feet per year, and it is to be hoped that the settlers will protect a fair proportion of the young bluffs that are coming up. They will never get their farms furnished with trees at a cheaper rate, and it would pay each man to have ten acres of bluff on his farm.

The rainfall was better in the districts along the Canadian Northern railway line, and the effect of good cultivation was shown very plainly here in several cases. Where good care was taken the groves are healthy and making good growth, coming through the winter with very little damage. Plots of the same age which have been neglected and the moisture exhausted by grass and weeds or evaporated by minute cracks, seemed to suffer with the dry weather and with both summer and winter frosts, making little advance, although in some cases both places were on the same section.

Conifers sent to different parts of Alberta did very poorly. The long distance to transport, hot, drying winds during the planting season, and the lack of rain in May and June were the chief causes, as conifers suffer more quickly from any drying influence than the deciduous trees usually supplied. Russian poplar was supplied largely in the districts from Claresholm to Didsbury, but owing to the unusually dry season the cuttings made a poor start compared with other years. Some of the blame may be laid to careless planting, as quite a number were planted too shallow, and many not firm enough. This tree is doing well in all parts of the country, the wood ripening early in the fall and seldom being hurt by winter frosts.

Ash is doing very well except when planted in low spots, where it is liable to be caught with summer frosts.

After the third year the growth of ash is rapid and sure, as much as two feet being often made in one year.

Your obedient servant,

JAS. N. B. MACDONALD,

Tree Planting Inspector.

No. 20.

REPORT OF WM. MACDONALD.

FOREST NURSERY STATION.

INDIAN HEAD, SASKATCHEWAN, January 10, 1911.

R. H. CAMPBELL, Esq.,
Superintendent of Forestry,
Ottawa, Ont.

SIR,—I have the honour to submit herewith my first report on tree planting work as carried on by the forestry branch.

After assisting in the general work of the nursery for eight months, I was transferred to the office on December 6, 1909, and there was engaged drawing plans for the guidance of planters, making out distribution lists for 1910, and other office work. On April 6, I was again assisting in the nursery, making cuttings, distributing trees and other spring work.

Leaving Indian Head on June 6, I commenced my tour of inspection, being accompanied by Mr. Mitchell for a few days.

The territory assigned to me was the Soo line, Drinkwater to North Portal, the Estevan line to Gainsboro', the Outlook branch, the Grand Trunk Pacific main line from Welby to Bradwell. After finishing the latter I received instructions to proceed to the Regina-Prince Albert branch of the Canadian Northern railway from Condie to assist Mr. Mackintosh, who was working on this route from the north. I inspected as far as Findlater.

The number of farms on my list to be visited was 1,080; of these 494 were new applicants, 358 of whom will receive planting material next year, while the remaining 136, who had not their land in proper shape for planting, will again be visited next season. In all, 688 applicants will receive trees and cuttings to the number of 501,605.

There was not much killing back of trees in the winter of 1909 and 1910, but the effects of the early spring were quite noticeable. Opening up as it did in March, with severe frosts later, maple and cottonwood shot into leaf were frozen back along with, in many cases, the previous year's growth. Here again the green ash and elm proved their worth as the trees of the future, owing to the fact that they do not come into growth so soon as trees of softer tissue do.

It is gratifying to find such enthusiasm among the farmers, especially those who have made a success of the plantations already set out under the directions of the forestry branch; many had bought stock from commercial nurseries to the number of 10,000 trees of various varieties, having had land ready for planting to the extent of from three to five acres.

At one farm on the Soo line, I was surprised to find seventeen acres set aside with the object of planting. In regard to the amount of land being prepared in this way, quite a number of disappointments were experienced with the small quantities of trees allotted this spring, and I have been asked to notify the amount to be shipped next season, so that arrangements may be made to purchase stock in time to plant in the spring the area prepared, rather than put in a root or grain crop.

Owing to the excessive drought and hot southwest winds which were experienced the latter part of June, seedlings and cuttings which were planted out in the spring

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were practically at a standstill, making little growth till well on in July, when a few showers and cooler weather set in. In a few cases I found the young plants and cuttings completely dried out, but this I attribute largely to delay at the various stations, although the applicants had received word from the department previous to their arrival. The feeling seemed to be one of disappointment to find the time lost in planting dead trees which might have been more profitably occupied on the farm during the busy season.

On the whole I am pleased to say that with few exceptions plantations visited were found to be well cared for and gave every satisfaction and that 70 per cent of the trees set out this spring are doing well, taking my district as a whole.

The conifers distributed this season did not make much growth, although most of the farmers who received them resorted to artificial watering; this I pointed out was not always to be recommended, as surface cultivation is usually all that is necessary for the conservation of the moisture.

Later in the season, owing to the continued dry weather, some discretion had to be used in the allotment of trees for new breaking. In many cases the sod was not properly rotted, and backsetting being delayed, the ground could not be worked into fit shape for planting next spring. In such cases it was sometimes hard to convince the farmer of the advantage of a season's delay.

One noticeable feature in the plantations this year was the absence of injurious insects, nor were the jack rabbits so destructive as they evidently had been in former years. I would say in conclusion that I almost invariably found the trees and cuttings planted with the spade do much better than where a furrow had been opened with a plough. The farmer usually has not the hired help sufficient to get the row planted closely after the plough, and the soil dries out badly before the work is finished, giving the young plants a poor chance to start growth. This style of planting is done with great success in the Forestry Nursery Station here, but there is a force of men on hand to get the trees planted as quickly as possible.

Very often the new settler cannot spare the time to open the ground with the plough, and plants with the spade in the evening with usually good results. Where practicable, I advise the use of the spade, thereby getting the plants firmer in the soil and more uniform in the rows.

I am, sir, your obedient servant,

WM. MACDONALD.

No. 21.

IRRIGATION SURVEYS.

REPORT OF JOHN STEWART, COMMISSIONER AND CHIEF ENGINEER
OF IRRIGATION.

CALGARY, ALBERTA, March 31, 1911.

R. H. CAMPBELL, Esq.,
Superintendent of Forestry,
Ottawa, Ont.

SIR,—On April 20, 1910, I sent out four engineering parties into the field for the purpose of making inspections and surveys of all irrigation schemes in the provinces of Alberta and Saskatchewan, two parties in Saskatchewan, one in Alberta, and one taking in all scattered schemes in the two provinces. Mr. R. J. Burley was

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in charge of party No. 1 in Saskatchewan, which included all territory from United States boundary to township 15, lying between ranges 18 and 27, west of the 3rd meridian. Mr. Fletcher was in charge of party No. 2 and covered all territory from the United States boundary to township 15, and from range 27, west of the 3rd meridian to range 28, west of the 4th meridian. Mr. Tempest had charge of the third party in Alberta and included the territory south to the boundary and east to range 8, west of the 4th meridian. Mr. MacKinnon took in all scattered work in the two provinces which could not be attended to by any of the regular parties without too much loss of time from their regular work. Each of these inspectors had written instructions to make inspections of all irrigation schemes in their respective territory, also to make surveys of all land applied for under the irrigation system to prove whether the scheme was a feasible one, or not, as to irrigation and water supply, before a recommendation for the sale would be made by me. Under these instructions Mr. Burley made 132 inspections of irrigation schemes authorized and licensed, 26 surveys of land applied for, 28 traverse surveys of creeks and ditches, 21 final inspections and valuations, 50 gaugings of streams, and sent in to this office 158 reports on the same.

Mr. Fletcher made 75 inspections of irrigation schemes, 18 surveys of land applied for under the irrigation system, 3 traverse surveys of creeks and ditches, 15 gaugings of streams and sent in to this office 93 reports.

Mr. Tempest made 188 inspections of irrigation schemes, including 129 licensed schemes, 10 final estimates of completed work, 24 proposed schemes, 9 surveys of land applied for, 48 gaugings of streams, and sent in to this office 161 reports. After completing his regular work in his territory, Mr. Tempest made a survey of ten miles of a coach road from Banff to Laggan in the Rocky Mountain Park. Owing to the great depth of snow in the mountains, he was compelled to drop the work and about this time he received an appointment on other work, which was a better position than held here.

Mr. MacKinnon made 10 inspections of irrigation schemes, 13 surveys of land applied for, a survey of a road in the Rocky Mountain Park, 3 inspections of railway tanks, 4 inspections of illegal dams and drains, and sent in to this office 30 reports. A very large extent of country had to be covered to get to some of these schemes. During the summer, I made several surveys and inspections of irrigation schemes, but owing to the large amount of work in this office requiring my attention, I could not spare the time to make surveys, or to even take the annual leave allowed me.

The work of this office was made up as follows, and was all handled by a staff of four clerks:—

Letters received.	6,116
Letters sent out.	7,819
Agreements for water in quadruplicate.	637
Applications for water rights, in duplicate.	88
Plans with applications, in duplicate.	88
Applications to drain roads, &c.	13
Railway easements, in triplicate.	89
Transfers of applications for water.	10
Railway plans recorded, in quadruplicate.	9
Notices of cancellation of water rights.	44
“ transfers of water agreements.	63
Applications to cross road allowances.	66
Applications for railway over Crown lands.	42
Notices prepared for publication.	99
Plans prepared for applicants.	23
Number of certificates under section 20.	83
“ “ “ 33.	49

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Number of licenses recorded in triplicate.	68
Number of reports received from R. J. Burley.	158
“ “ J. S. Tempest.	161
“ “ F. T. Fletcher.	93
“ “ J. A. MacKinnon.	30

From the above records of the office work and the reports of the several inspectors, it will be seen by comparing the work of the past year with that of 1907, when 984 communications were received and 2,163 sent out, that there has been a large increase both in the field work and office work. In 1907 all hydrographic work was handled by this office as well as irrigation work.

JOHN STEWART.

No. 22.

REPORT OF J. S. TEMPEST.

THE PAS, KEEWATIN, March 17, 1911.

JOHN STEWART, Esq.,
Commissioner of Irrigation,
Calgary.

SIR,—I beg to submit the following report of my work during the year 1910-11, as Irrigation Inspection Engineer in southern Alberta.

I started out from Calgary on April 26, 1910, with a small outfit to inspect all licensed, authorized and proposed irrigation schemes and diversions of streams for other purposes in southern Alberta, to observe the discharge of streams and springs, and to make such further surveys, plans and inspections as instructed from time to time by you.

During the season, I made 188 inspections and surveys, including 129 licensed schemes, 16 authorized schemes, 24 proposed schemes, 10 estimation of cost of works, and 9 surveys. I also took 48 gaugings of streams and springs en route, using Price's meter and weir boards.

The summer of 1910, on account of the long continued drought, will long be remembered in southern Alberta. Although ranchers and farmers, both, suffered great loss on account of failure of hay and grain crops and deficiency of pasturage, the experience will no doubt lead many to adopt methods that will ward off or minimize the possibility of a similar failure should there be a recurrence of another such season. Not only was the rainfall practically nil, but the snowfall in the preceding winter was exceptionally low. In many places there was no growth at all, and much of the hay that was cut consisted of the dried up grass of 1909, usually poor in quality. The sources of supply of many irrigation schemes either failed entirely or were reduced so low as to be quite inadequate for the requirements of the irrigable areas.

It has been the custom of many irrigators to defer using their schemes until after the usual spring rains. Many following this custom suffered a great disappointment, for although there was water available in the early spring, the sources of supply failed in early summer, so that the land received neither the spring rain nor benefited by irrigation. The common intention of those who suffered from this cause is to put on water in future whenever available unless the land be already sufficiently saturated. Although late fall is admittedly the best time to apply water, many of

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the schemes deriving their supplies from the smaller creeks and springs often have very little or no water available at this time of the year. In consequence of the drought many new applications for water rights began to be made, and many of these were for the irrigation of lands owned by the applicants. Several of the inspections of these proposed schemes disclosed the fact that though the source of supply was probably sufficient in normal years the gaugings in 1910 showed a deficiency and the matter had to be deferred for further investigation. There were many cases, too, of owners of land refraining from putting in application to divert water for irrigation purposes on account of the sources of supply, usually sufficient, being temporarily reduced too low.

Many of the schemes deriving their supply from the smaller creeks and springs, although very satisfactory in average seasons, will always be subject to failure in times of great need, such as was experienced in the summer of 1910.

I strongly advocate combination amongst farmers and ranchers to introduce larger schemes having a more reliable supply than is to be found in any but the larger streams. Any one travelling through the foot-hills and the adjacent prairie, and viewing the parched pastures of the ranches and the suffering arable land of the farmer on the one hand and on the other hand the large volume of water running to waste, naturally wonders why the land owners do not wake up and do something. If, as Bacon says, 'A wise man makes more opportunities than he finds,' what must be said of the unwisdom of a community that does not grasp the opportunities at hand? There are Fish creek, Sheep creek, Highwood river, Willow creek, Oldman river, Crowsnest river and others, practically untouched. Being large and turbulent streams, and difficult to control, the average land-owner feels that these utilities are beyond his reach. Holdings are now comparatively small, as a rule, and in the hands of many. When the unaided land fails to produce sufficient feed for the flocks and herds, the owner cannot, as of old, drive his stock to fresh fields and pastures new. In the present circumstances he is compelled to reduce his stock, often at a great sacrifice, to meet the situation instead of combining with his neighbours in the construction of efficient dams, canals and other necessary works to utilize the vast volume of water now running to waste and so putting himself beyond the fickleness of seasons. This is a matter, I think, in which the irrigation office might take the initiative and thoroughly investigate, considering the water available, the lands irrigable (whether Dominion or private lands), suitable points for diversion and cost of works.

As I have mentioned in a former report or bulletin, the advantages of irrigation even in southern Alberta's wettest years are very considerable, hay lands producing probably double the crop and alfalfa producing two or three crops in the season, aggregating as much as 6 tons per acre.

In addition to the inspections and surveys of schemes for diverting water for different purposes, I located 10 miles of the proposed coach road from Banff to Laggan, but for private reasons, I was compelled to leave this work unfinished.

I am, sir, your obedient servant,

J. S. TEMPEST.

No. 23.

REPORT OF RALPH J. BURLEY.

IRRIGATION OFFICE,

MAPLE CREEK, SASKATCHEWAN, JUNE 10, 1911.

R. H. CAMPBELL, Esq.,

Superintendent of Forestry and Irrigation,

Ottawa, Ont.

SIR,—I beg to submit the following report upon the work done under my direction, and the progress of irrigation development in the Cypress Hills district during year ending March 31, 1911, together with a few suggestions which might improve our service there.

Owing to the large increase in the number of applications for water rights throughout the Cypress hills it was found necessary to divide the district into two parts, the division being roughly along the township line between ranges 26 and 27, and Mr. F. T. Fletcher was put in charge of the work in the western portion, while that in the eastern part was done by myself. The instructions issued were to inspect all schemes in the district, running such levels and traverses of the various schemes as possible, without taking too much time from the regular work of inspection, and to do whatever hydrographic work we could without interfering with or overlapping what was done by the hydrographic surveys.

In pursuance of these instructions the hydrographic work done was mostly of an experimental nature and measurements were taken more with the view of adding to our knowledge the value of the Kutter & Chezy formulæ as applied to the high water flow in the streams than with the idea of supplementing the measurements taken at the regular stations by the hydrographic surveys.

In carrying out this work a cross-section was taken at some suitable place and a careful meter measurement made, so that by substituting the known values in the formulæ it was possible to work out the coefficient of friction for the low water cross-section. Levels were then run about a mile above and below this central cross-section and tied to some permanent mark, such as a section corner, and new cross-sections made at each point. This gave the average slope of the stream for a distance of from one to two miles, and the levels obtained could be used at some future date in the determination of contours in the stream valleys. Owing to the great number of irrigation schemes this work was little more than started last season, and the progress made was not great enough to determine to what extent it will be of value in our work. So far as the work has gone, however, it appears that the values of the friction factor as determined for various conditions of the stream bed in the larger streams in the United States are too low for the small streams here in low water and it was proposed to attempt to get results at high water when possible to see if the greater depth would lower this factor. This, however, was impossible last year as there was not at any time water high enough to make the experiment.

The past season was so extremely dry throughout the district that very little water was available for irrigation purposes and the majority of the streams were almost dry during the irrigation season, bringing out very forcibly the necessity for the establishment of storage reservoirs wherever possible.

Another fact illustrated was that even one flooding in March or April will materially increase the chances of a fair yield in a dry year, and at one place visited

this was very noticeable. In this case the ditch had been almost completed but no headgate had been constructed, so that when the run off from snow occurred in March the water flowed through the ditch and broke over the sides on to the ploughed ground below it for a day or so before it could be shut off. In July at the time of inspection the wheat on the land was some fifteen to eighteen inches high where the water had been over it in March, while on the other parts it was only three to four inches in height. This would appear to show that even flood water irrigation will make a decided improvement in the value of the land in a semi-arid district.

The majority of applicants for water rights in this district appear to be realizing that irrigation is in some years a necessity and in all years a great asset if they expect to continue in their present business or even if they are forced to commence farming operations, and although the influx of settlers in the last two years has practically extinguished the large rancher, the small stockman still finds it possible to run his stock if he can grow winter feed, and a large number of them are beginning to see that the conservation and proper application of water to their land is the only solution of the problem. This probably accounts for the fact that considerably better progress was made last year on the various ditches than was made during the previous dry years, and while the ground was very dry and hard and hay difficult to get, nevertheless a great deal of good work was done on the majority of the schemes.

Since becoming more familiar with the conditions of stream flow in this district, it has become apparent that a ditch sufficiently large to carry the amount of water called for by our present duty of water will but poorly serve its purpose in the greater number of schemes constructed or projected in the Cypress hills. For example, take a scheme that irrigates three hundred acres of land requiring two second feet of water where a ditch three feet on the bottom, one foot deep and five feet on top with a moderate fall will easily carry the two second feet. But this amount is required continuously during the irrigation season and the water in the stream only flows, say, two months, therefore it is apparent that in order to get the total quantity of water required it will be necessary to enlarge the ditches in proportion and to divert a greater amount of water for a shorter time. This fact has been recognized by some and pointed out to all irrigators, and for some years they have been urged to build larger ditches or to enlarge those already built so that their systems would be adequate for the proper irrigation of the land included under them. In a great many cases the applicants have recognized the necessity of this enlargement and have gone ahead with it, but in some cases it appears difficult to satisfy them that the advantages will be proportionate to the increased cost. However, it will only be a matter of time until all will realize that they must either reservoir or put a larger volume of water over the land during the short flood period and even where the flow is constant the larger ditches are better because the land can be watered in far less time and with less work and waste of water.

RESERVOIR SYSTEM.

Probably one of the most important factors in the irrigation of the irrigable areas in the Cypress hills is the development of reservoir systems, and there can be no question but that every encouragement should be given by the department to any applicant who wishes to store water. The regulations governing the leasing or granting of land for this purpose should be made as lenient as possible, so that the applicant can feel safe in going to a considerable expense without feeling that there is any danger of losing his scheme if he is forced to cease the operation of it for a short time owing to some unforeseen circumstance.

A system somewhat similar to that used among the irrigators near Fort Collins and Greeley, Colorado, might be recognized and encouraged here, and it would undoubtedly increase the effectiveness of irrigation. There, by a mutual arrange-

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ment among the irrigators themselves, the water is stored in the reservoirs owned by the later applicants near the head of the streams, and the early appropriations, that is, those having the right to the low water flow, are satisfied by the water let down out of these reservoirs during the summer. By this means the larger companies having appropriations calling for high water only near the head of the streams are enabled to store enough during high and flood stages in reservoirs at an elevation too low to be of use to them on their own lands, but which can be used on the land of the prior applicants lower down, enabling the companies to use the low water flow at their intake.

Another system which is being used to some slight extent here is that of trading water, that is, two applicants entitled to, say, one second foot each will exchange and allow one to take the whole flow for a certain time until his land is thoroughly watered, when he will turn it over to the other. This system has many advantages to commend it if it can be amicably worked, the greatest being the saving of water and the speed with which the land is covered, as it can be easily seen that the losses due to evaporation and seepage will be much smaller proportionally in a large swift flow than in a small slow one.

Wherever possible, it is much better that reservoir systems be constructed outside the stream bed, as experience has shown that the storage of water in the bed of the stream gives rise to a great many difficulties in the handling of both the stored water and the natural flow of the creek. The greatest difficulty as it affects parties other than the applicants is the trouble of passing the natural flow to a point below the dam, the applicant usually claiming that he should not be made to stand all the evaporation and seepage loss, as it would have occurred in any case, and the parties below claiming that the whole natural flow as it is above the dam should be passed through. It would appear that there is a measure of truth in both of these claims, as there is an undoubted loss in the natural channel, but it is also true that the loss is increased owing to the greater area exposed to the effect of evaporation and a greater pressure to cause a seepage loss. So far there does not appear to be any satisfactory way of passing the natural flow through the reservoir, as the overflow wasteway will at least partially cease to operate when the ditch is being used, and a pipe through the dam will vary its discharge constantly as the level of the reservoir changes, and the adjustment of the controlling gate or valve must be constantly changed. It is, however, probably the only practical way of letting water through, and it will be necessary to devise some method whereby a fair degree of control can be obtained and by which either the owner of the reservoir or the other interested parties can tell at once how much water is passing into and out of the reservoir. This presents a problem of much difficulty, and one which will take considerable time to solve experimentally.

In conclusion, I would suggest that, whenever time permits, the engineers in charge of the irrigation and hydrographic parties make rough reconnaissance surveys of such small reservoir sites as they may find from time to time, and if they appear to promise results, should submit rough plans, so that if they were considered of sufficient importance they could be thoroughly investigated by a party on reservoir work.

Your obedient servant,

RALPH J. BURLEY.

No. 24.

REPORT OF P. M. SAUDER, CHIEF HYDROGRAPHER.

DEPARTMENT OF THE INTERIOR,
HYDROGRAPHIC SURVEYS,

CALGARY, ALBERTA, March 31, 1911.

R. H. CAMPBELL, Esq.,

Superintendent of Forestry and Irrigation,
Ottawa, Ont.

SIR,—I have the honour to submit the following brief report on the work of the Hydrographic Survey during the past year.

With an increased appropriation at our disposal we were able to extend the work of the survey very much during the past year. Considerable reconnaissance work was done, and a number of new gauging stations were established. In the spring of 1910, we commenced field operations with 68 regular stations, and at present we are studying the regimen of flow at 98 regular stations distributed along the various streams in southern Alberta and Saskatchewan.

The summer of 1910 was exceptionally dry, and records of last year will be very valuable as a basis for low water estimates. Very few of the streams have been as low for many years, and many were much lower than the oldest residents had ever seen them.

The methods of carrying on the survey were similar to those of the previous year. Local residents were engaged to observe the gauge height at regular gauging stations. These observations were recorded in a book supplied by the survey, and at the end of each week the observer copied the week's records on a postal card, which was sent to the chief hydrographer by the first convenient mail. The district hydrographers made regular visits to the gauging station, usually once in every three or four weeks. They examined the observers' records, made discharge measurements and collected such information and data as would be of use in making estimates of the daily flow at the station. The results of the gaugings were transmitted by a postal card to the chief hydrographer. The records of the gauge height observers and the hydrographers were copied from the postal cards to regular forms in the office of the survey and filed. At the close of the season the engineers returned to the office and assisted in the final computations and estimates of run-off. Gauge height-area, gauge height-mean velocity and gauge height-discharge curves were plotted and rating tables constructed. Tables of daily gauge height, daily discharge and monthly discharge were also compiled. These records are being re-copied and will be embodied in the second annual report of the survey, which will be completed in a couple of weeks.

The organization in 1910 was very similar to that of the previous year. The territory covered by the survey was very much increased during 1910, and the staff was therefore increased to include eight assistant engineers, a clerk and a draughtsman. The irrigation tract was divided for administrative purposes into five districts, viz., Calgary, Macleod, Milk River, Maple Creek and Moosejaw, and in each district there were one or two hydrographers. Each hydrographer had at least one assistant, and was equipped with a team, light wagon, light camping outfit and the necessary gauging and surveying instruments.

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CALGARY DISTRICT.

J. C. Keith, a graduate of the School of Practical Science, and who had previous experience with the survey as an assistant, was placed in charge of the field work in this district. He commenced his duties about May 5.

The district was fairly well reconnoitred in 1909, but the proposed regular stations had not all been established. Regular gaugings were, therefore, made at those stations which were already established, and new stations were added from time to time during the season, as opportunity afforded.

Records were obtained at the following regular stations during 1910:—

Stream.	Location.
Bow River.	N.E. 26-25-12-5
"	S.E. 13-24-1-5
"	S.E. 31-21-25-4
Canadian Pacific Railway Company's canal.	S.E. 13-24-1-5
Elbow River.	S.E. 15-24-1-5
Fish Creek.	S.W. 26-22-3-5
Highwood River.	Sec. 6-19-28-4
Jumpingpound Creek	" 30-24-4-5
Mosquito Creek.	" 30-16-28-4
Nanton Creek	" 20-16-28-4
North Branch of Sheep River.	" 12-21-3-5
Sheep River.	" 22-20-29-4
South Branch of Sheep River.	" 17-20-2-5

The following gauging stations were established during 1910, and records were obtained at them from the time they were established until the end of October:—

Stream.	Location.
Bow River.	Near Laggan.
"	Stony Indian Reserve.
"	Blackfoot Indian Reserve.
Devil's Creek.	Sec. 29-26-11-5
Little Bow Ditch.	" 6-19-28-4
Red Deer River.	" 6-36-28-4
Spray River.	Near Banff.

At the end of September Mr. Keith was given leave of absence for five months to return to the School of Practical Science to take a post graduate course in hydraulics and theory of construction. Mr. Carscallen was therefore placed in charge of the field work in this district on October 1.

Early in November, when additional funds were provided, it was arranged to continue field work in this district during the winter and records of the flow were obtained from that date to the present at the following regular stations:—

Stream.	Location.
Bow River.	Near Laggan.
"	At Banff.
"	On Stony Indian Reserve.
"	At Calgary.
Devil's Creek.	Sec. 29-26-11-5.
Elbow River.	S.E. 15-24-1-5.
Spray River.	Near Banff.

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A large number of miscellaneous measurements of the discharge of tributaries of the Bow river and other streams in this district were also made during the year, and will be valuable as general information.

I was assisted in the final computations and report for this district by H. R. Carscallen and H. C. Ritchie.

Records of the flow of Bow river are of very great importance. A study of the flow of this stream indicates that the whole of the normal flow of this river has already been granted for irrigation purposes, and any further development must be based on the storage of high and flood flow. Already this river is being harnessed for power, and as industries increase and a larger market is created there will be more power development. For this purpose records of minimum flow are essential. Minimum flow occurs during the winter season and the records obtained during the past winter are very valuable. The flow was, however, somewhat less than anticipated and it is very important that further studies be made. The regimen of flow in the Bow at Calgary varies from 700 second feet in midwinter to an estimated 60,000 second feet at extreme flood stage. There are a number of feasible storage sites in the mountains which can be utilized to augment the winter flow sufficiently to keep up a continuous flow several hundred second feet higher than the natural minimum flow. Bow river is by far the most important stream in the irrigation tract, and a comprehensive study of the hydrography of this stream and its tributaries is of direct value in the commercial and agricultural development of the country. I am therefore of the opinion that one engineer should spend all his time on the main stream and its immediate tributaries.

I would also suggest that the Calgary district be extended to include the Red Deer river and its tributaries, and that two hydrographers be placed in this district at an early date. As soon as time and funds permit, regular stations should also be established on branches of Highwood river and included in this district.

MACLEOD DISTRICT.

H. C. Ritchie, graduate of the School of Practical Science, was in charge of this district in 1909 and again in 1910. The district has been fairly well reconnoitred by both Mr. Ritchie and myself, and gauging stations have been established at almost all the important points. The Oldman river and its tributaries are very important and several additional gauging stations were established on these streams during the past year.

Records were obtained at the following regular stations during 1910:—

Stream.	Location.
Belly River.	S.E. 21-6-25-4.
Connelly Creek.	S.E. 36-7-2-5.
Cow Creek.	N.E. 14-8-2-5.
Cracked Creek.	S.E. 22-2-29-4.
Crownsnest River.	N.W. 26-7-2-5.
Muddypound Creek.	Sec. 27-11-28-4.
Oldman River.	N.E. 34-7-1-5.
Pincher Creek.	N.E. 22-6-30-4.
Southfork River.	S.E. 2-7-1-5.
Todd Creek.	S.W. 19-8-1-5.
Trout Creek.	S.E. 12-12-28-4.
Waterton River.	N.E. 8-2-29-4.
Willow Creek.	S.E. 26-9-26-4.

The following gauging stations were established during 1910, and records were obtained at them from the time they were established until the end of October:—

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Stream.	Location.
Canyon Creek.	N.E. 14-6-2-5.
Crowsnest River.	N.E. 26-7-4-5.
"	S.W. 12-8-5-5.
Mill Creek.	S.W. 18-6-1-5.
Oldman River.	Sec. 10-9-26-4.

A large number of miscellaneous measurements which will be very valuable as general information were also made by Mr. Ritchie during the year.

About December 1, when additional funds were provided it was arranged to carry on field work in this district during the winter. W. H. Greene was placed in charge of the field work in this district during December, January and February. Early in March Mr. Greene was employed in reconnaissance work on the North Saskatchewan river, and J. E. Degnan has been in charge of the field work in the Macleod district during the past month.

Winter records were obtained at the following regular stations:—

Stream.	Location.
Crowsnest River.	N.E. 36-7-4-5.
"	N.W. 26-7-2-5.
Oldman River.	N.E. 31-7-1-5.
Southfork River.	S.E. 2-7-1-5.
St. Mary River.	S.W. 25-1-25-4.
Waterton River.	N.E. 8-2-29-4.
Belly River.	S.E. 21-6-25-4.

I was assisted in the final computations and report of the work in this district by H. C. Ritchie and Jos. Cawthorn.

Mr. Ritchie did not use a camp at all last summer, and many of the gauging stations can be reached by train. It is proposed to include the stations on Belly and Waterton rivers in the Western Milk River district in future. The engineer in charge of the Macleod district can then travel by train and hire liveries by the day. His monthly expenses will be a little higher than formerly but he will accomplish a great deal more work and the actual cost of the individual gaugings will be less.

It is very important that winter observations should be continued in this district.

MILK RIVER DISTRICT.

F. H. Peters, C.E., D.L.S., who was engaged on special investigations on Milk and St. Mary rivers, also had charge of the hydrographic work on these two rivers and their tributaries. In 1909, Mr. Peters reconnoitred most of this district and established almost all the gauging stations necessary to obtain complete records of the flow of these two streams. Therefore, very few new stations were established during 1910, but very complete records of the flow at the regular stations were obtained.

One engineer could not cover the whole of this district, and it was therefore divided and two engineers were employed on hydrographic work. L. J. Gleeson, B.Sc., was in charge of the field work in the western portion of the district, and N. M. Sutherland, graduate of the Royal Military College, was in charge of the field work in the eastern portion of the district.

Records were obtained at the following regular stations during 1910:—

Stream.	Location.
Lee Creek.	N.W. 10-3-25-4
Lodge Creek.	Sec. 6-1-28-4

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North Branch of Milk River.. . . .	N.E. 13-1-23-4
“ “	Sec. 18-2-20-4
“ “	S.W. 19-2-18-4
Milk River.. . . .	Sec. 28-2-16-4
“	N.W. 35-1-13-4
“	S.W. 21-2-8-4
“	Sec. 3-1-5-4
South Branch of Milk River.. . . .	Sec. 31-1-18-4
St. Mary River.. . . .	S.W. 25-1-25-4
Sage Creek.. . . .	Sec. 9-1-2-4

The following gauging stations were established during 1910, and records were obtained at these from the time they were established until the end of October:—

Stream.	Location.
Alberta Railway & Irrigation Company's canal. . . .	Sec. 21-4-24-4
Battle Creek.. . . .	Sec. 3-3-27-3
Frenchman River.. . . .	Sec. 5-5-14-3

The work in the western end of this district is not very heavy, and it is therefore being arranged to have the engineer in this portion of the district include Belly and Waterton rivers in his route, so as to make a more equal division of the territory, and relieve the engineer in the Macleod district of a long drive from Macleod.

CYPRESS HILLS DISTRICT.

A large irrigation development in the Cypress Hills has caused an urgent need for very complete records of the flow of the streams in this district. In 1909, H. R. Carscallen, B.A.Sc., was in charge of the field work in this district, and established a large number of regular gauging stations. In the spring of 1910, it was realized that one engineer could not cover the whole of this district, and it was therefore divided by a north and south line into two districts. The eastern district was fairly well reconnoitred by Mr. Carscallen in 1909, and almost all the necessary gauging stations were established during that year. There was, however, considerable reconnaissance work to be done in the western district, and only a few regular stations had been established. Mr. Carscallen was, therefore, placed in charge of the field work in the western portion of the district, and R. G. Swan, B.A.Sc., was engaged to take charge of the field work in the eastern portion of the district. Mr. Carscallen commenced field work about April 1, and Mr. Swan about May 10.

Records were obtained at the following regular stations during 1910:—

Stream.	Location.
Battle Creek.. . . .	Sec. 33-5-29-3
Bear Creek.. . . .	“ 18-11-23-3
East Branch of Bear Creek.. . . .	“ 21-10-23-3
West Branch of Bear Creek.. . . .	“ 32-10-23-3
Belanger Creek.. . . .	“ 18-7-25-3
Blacktail Creek.. . . .	“ 31-6-23-3
Bone Creek.. . . .	“ 34-8-22-3
Bridge Creek.. . . .	“ 11-11-22-3
Bullshead Creek.. . . .	“ 16-12-5-4
Davis Creek.. . . .	“ 29-6-25-3
Enright and Strong's Ditch.. . . .	“ 36-6-22-3
Fairwell Creek.. . . .	“ 30-6-24-3
Frenchman River.. . . .	“ 31-6-21-3
Gap Creek.. . . .	“ 2-10-27-3

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Hay Creek.. . . .	" 30-10-25-3
Jones Coulee.. . . .	" 5-8-20-3
Lonepine Creek.. . . .	" 27-7-26-3
Maple Creek.. . . .	" N.E. 16-11-26-3
Middle Creek.. . . .	" 30-5-29-3
Mackay Creek.. . . .	" N.W. 26-11-1-4
McShane Creek.. . . .	" 4-10-27-3
Oxarart Creek.. . . .	" 20-6-27-3
Piapot Creek.. . . .	" 18-11-24-3
North Branch of Frenchman River.. . . .	" 16-7-22-3
Ross Creek.. . . .	" N.W. 21-11-2-4
Sixmile Coulee.. . . .	" 29-7-28-3
Skull Creek.. . . .	" 10-11-23-3
Sucker Creek.. . . .	" 24-6-26-3
Swift Current Creek.. . . .	" 22-7-21-3
Tenmile Creek.. . . .	" 33-5-29-3

The following gauging stations were established during 1910, and records were obtained for part of the year:—

Stream.	Location.
Battle Creek.. . . .	S.W. 2-6-28-3.
Boxelder Creek.. . . .	Sec. 2-12-30-3.
Gap Creek.. . . .	Sec. 31-11-26-3.
Lindner's Ditch.. . . .	Sec. 10-6-29-3.
Manyberries Creek.. . . .	Sec. 3-5-6-4.
Maple Creek.. . . .	N.E. 28-11-26-3.
Middle Creek.. . . .	Sec. 4-2-29-3.
"	S.W. 35-5-1-4.
Sevenpersons River.. . . .	Sec. 30-12-5-4.
South Branch of Swift Current Creek.. . . .	Sec. 18-10-19-3.
Swift Current Creek.. . . .	Sec. 17-10-19-3.
" "	S.W. 30-15-13-3.

A large number of miscellaneous measurements were also made for purposes of general information.

About the later part of September, owing to Mr. Keith leaving temporarily, and for purposes of economy, Mr. Carscallen was placed in charge of the Calgary district and Mr. Swan took charge of the field work in the whole of the Cypress Hills district.

Mr. Swan resigned about the end of November and I was assisted in the final computations and estimates of daily discharge by Mr. Carscallen and G. H. Whyte.

There is still a portion of the district which is not covered by the survey. A reconnaissance of the country surrounding Old Fort Walsh and including the heads of Battle, Lodge, Mackay, Ross and Bullshead creeks will be made during the present year.

MOOSEJAW DISTRICT.

For some time it has been realized that as the country becomes more thickly populated and towns spring up, there are portions of the west which will not have a sufficient water supply for domestic and industrial purposes.

The council and board of trade of Moosejaw for 1909 were among the first to realize that while there is a sufficient water supply in the district it is allowed to run off into the larger rivers in the freshets, and the district is left with an inadequate supply during the remainder of the year, and petitioned the government to investigate and report on the resources of the Moosejaw creek and the best methods for the development of the same.

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This work was undertaken early in the spring of 1910, and a survey party was organized, with Mr. Chas. M. Teasdale, D.L.S., in charge, to make a hydrographic and topographic survey of Moosejaw creek. About May 1, Mr. Teasdale resigned. Mr. W. H. Greene, a graduate of the School of Practical Science, was then placed in charge of the field party and M. H. French was engaged as assistant.

Two gauging stations were established on the creek, one at a bridge on the N.W. $\frac{1}{4}$ Sec. 16-16-26-2, and the other at a bridge on the road allowance between sections 14 and 15, township 15, range 25, west of 2nd meridian. Daily records were obtained at these stations and the total annual run-off computed. A careful stadia survey was made of the valley from Moosejaw to a point a few miles above Rouleau, and a map showing the configuration of the surface of the ground by contours of 10 feet intervals was prepared. While the topographic survey was in progress a careful reconnaissance was made to discover the most inviting places for the locations of dams and reservoirs. Cross-sections were taken at four dam sites offering the best opportunities for storage. The contour map shows the lands which would be flooded by the erection of a dam of any feasible height, and tables showing the flooded areas and capacities of the reservoirs were also prepared. A copy of the report of the survey of Moosejaw creek will be included in the Second Report of the Progress of Stream Measurements.

The water supply in the vicinity of Regina, Moosejaw and along the Soo line of the Canadian Pacific railway is limited and it is very important that we should continue a study of the regimen of flow of Moosejaw creek for several years. This district will be extended during the coming year to include the Souris, Qu'Appelle and South Saskatchewan rivers. Souris river which heads in Canada, crosses the international boundary into the United States and then recrosses into Canada, and finally empties into the Assiniboine river east of Brandon. This river traverses a large territory in Canada and is the only stream in that district. It is proposed to divert it for irrigation purposes in North Dakota, which may affect Canadian interests.

OFFICE WORK.

As above intimated, the reports of the gauge height observers and the hydrographers were transmitted to the chief hydrographer by postal cards. These were entered on office forms and filed in a suitable cabinet, where they can be referred to at any time without any trouble. As the engineers completed their computations, the results were entered on convenient forms and filed in the same cabinet.

The accounts of the survey were kept in a combined day-book and journal, approved by the accountant of the department. Statements of expenditures were prepared and sent to the Superintendent of Forestry and Irrigation at the end of each month.

Miss G. E. Corrigan acted as clerk in the office during 1910. Besides typing and filing the correspondence, she entered and filed the cards, posted the day-book and ledger and prepared the monthly statements.

When it was decided to continue two engineers in the field during the winter, it was found that the remaining staff of engineers could not complete the maps, curves and office computations before spring. Mr. Joseph Cawthorn was therefore engaged as draughtsman. Since joining the staff he has prepared the maps and assisted in plotting curves, checking computations and copying the records for the annual report of the survey.

There has been a slight tendency in the past to make a very big showing in the field work and to overlook the importance of the office work. Sufficient office staff should be provided to thoroughly check all the reports and field books as they are received. I therefore strongly recommend that the office staff be increased to include a computer. The chief hydrographer could then keep a much better check on the

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work of his assistants and when the engineers return to the office their field notes would be ready to be plotted and the data for the report could be compiled in much better shape and at an earlier date.

FUTURE WORK.

A number of applications have been received for water rights on streams in the vicinity of Wood mountain and the lower part of Frenchman river. Very little information is available regarding the water supply or the possibilities of irrigation in this district. There do not appear to be any permanent or large streams in the district but there are indications of considerable run-off at certain seasons of the year and of possibilities of storing water for irrigation purposes. An engineer will be placed in the field as soon as possible to study and report on the water supply in this district.

During the past month, Mr. Greene made miscellaneous discharge measurements of the north and south Saskatchewan rivers, and arrangements are being made now to establish regular stations on these streams as soon as possible. These are large and important streams, for they carry almost all the run-off of southern Alberta and Saskatchewan. Records on them will be very useful, locally for power studies, and generally for statistical purposes, to show the conditions existing over large areas. They also may be used as primary stations, and their records in connection with short series of measurements will serve as bases for estimating the flow at other points in the drainage basin.

The records of the survey are being used quite extensively now by engineers and, I think, the time is near at hand when the field of operations should be extended to include other parts of the Dominion. I would like to make miscellaneous gaugings of some of the streams in eastern Manitoba, such as Winnipeg, Whitemouth and Red rivers. The United States geological survey have established a gauging station on Rainy river, at International Falls, and have records covering the period from March 1, 1907, to the present. This is an international stream and important for power purposes, and I would suggest that the department consider the advisability of taking records of the flow of this stream. I would also suggest that we might do some work in the railway belt of British Columbia.

In all investigations of water resources the most important factor is the available water supply. It is also the factor that requires the longest time to determine satisfactorily, owing to the great fluctuation in stream flow from year to year. The stream gaugings already undertaken should, therefore, be continued for a number of years, in order that the records may be long enough to show the extremes of flow as well as a reliable mean.

The low flow of 1910 has demonstrated the part that municipal water supply and sewage disposal have in the use of rivers, and therefore, data should be compiled to show the amount of such water supply and sewage and the source of the former (where in surface waters) and the disposal of the latter.

I do not think it necessary to elaborate on the importance of continuing observations during the winter on the more important streams. The minimum flow occurs during that season and should be determined for use in considering power schemes.

Next to importance to a knowledge of the available water supply is a knowledge of the fall of the streams, and the possibilities of storage. This is necessary to determine the value of the river for irrigation, water-power, as an outlet for drainage ditches, and as an available channel for flood prevention work. River profile and reservoir site surveys should therefore be commenced as soon as possible on the more important streams of the west.

Your obedient servant,

P. M. SAUDER,

Chief Hydrographer.

No. 25.

REPORT ON THE MILK AND ST. MARY RIVERS INVESTIGATION, 1910-11,
BY F. H. PETERS, C.E.

CALGARY, ALBERTA, April 1, 1911.

R. H. CAMPBELL, Esq.,
Superintendent of Forestry and Irrigation,
Ottawa, Ont.

SIR,—In making this report it must be pointed out in the beginning that although a large amount of information was gained, much of it was of a confidential nature, and does not properly find place in this report.

Very careful and frequent stream measurements were continued throughout all the season on the Milk and the St. Mary rivers and all their tributary streams that could be reached, and all of these records have been turned over to the chief hydrographer, and will be published as a part of his 'Report of Progress of Stream Measurements.' Two hydrographers were employed during the season on this work, and their routes covered all the territory along the international boundary, from Lee creek to Cardston, Alberta, to Battle creek, in Saskatchewan. The duration of the season's work was from April 5 until November 18. From the beginning of the season until the middle of August the writer was employed making a general reconnaissance of all of the watershed of the Milk river and the head waters of the St. Mary river. That section of Saskatchewan lying along the boundary to the south of Wood mountain, which it was intended to reconnoitre, could not be travelled, owing to the scarcity of grass and water caused by the great drought of the season. During the season the total number of regular meterings made was 311; miscellaneous meterings, 100; and the total number of miles travelled, 7,106. The whole season's field work, including all lost time and delays, comprised 519 hydrographer-days work, which shows a daily average of 0.6 regular meterings, 0.2 miscellaneous meterings, and 13.7 miles travelled.

Two of the stations on the north branch of the Milk river, viz., Mackie's ranch, section 19, township 2, range 18, west of the 4th meridian, and Knight's ranch, section 13, township 2, range 21, west of the 4th meridian, proved unsatisfactory, owing to the fact that no permanent gauge rod readers could be obtained at these points.

It is thought that this trouble will continue to exist in future, and for this reason it is recommended that the hydrographers' routes be somewhat changed during the season of 1911-12.

The observations at Knight's ranch could be discontinued altogether without impairing our records of the river flow, and Cardston, Alberta, would then be made the headquarters for the western division of Milk river. Operating from this point the hydrographer would observe only the north branch of the Milk river at Peters' ranch, and then would be free to spend most of his time on the St. Mary river at Kimball, Lee creek, at Cardston, and also cover all the territory westwards, towards, and to, Waterton lakes. With headquarters at Milk River station, the second hydrographer would cover the eastern division of Milk river from Mackie's ranch to the eastern crossing of the Milk river at Spencer's lower ranch, and also the district surrounding Pakowki lake, north of it. This would make a more economical procedure for the hydrographic observations in the Milk and St. Mary river districts.

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Attention is called to the table 'Study of Conditions of Run-off Watershed of the Milk River,' included in the 'Report of Progress of Stream Measurements.' This table is similar to Table 'B' attached to my report on Milk river of 1909, and a study of it will appear to verify all the statements made in that report in regard to the run-off of the watershed, and also the sub-surface flow of the stream. It is noted that the column 'run off per square mile for additional area' must be read with caution, because the subsurface flow of the river makes these figures most unreliable.

The past season was an extremely dry one, and the records of stream flow for the season may be regarded as approaching the minimum probable flow, although old timers along the Milk river claim that in the past they have seen stretches of the river quite dry.

The tables of daily discharge show that at the eastern crossing (Spencer's lower ranch) the river almost went dry during all the month of August.

During the season's work a level-compass-stadia survey was made of each station on the Milk river. These surveys covered a length of the river at the various stations of from 200 to 1,500 feet, and it was endeavoured to cover from the controlling river section above the station to the controlling river section below the station. The surveys developed the topography of the river banks, and the two controlling sections above and below the station.

The surveys were made primarily to gain evidence which might be useful in the future to determine to what extent the river channel had changed, either by meandering or by cutting down into the earth, and the information will also be used in making a study of co-efficients for determining stream flow by 'slope' measurements.

The matter of getting records of stream flow along the Milk river has two exceptional peculiarities. The first is that there are no other streams requiring measurement along the Milk River valley, and therefore it is not possible to lay out a 'circuit' for the hydrographer; but he must of necessity continually travel up and down the same stream, which is to a great extent wasting time. The second is that the only existing reason requiring complete records of the stream flow in Milk river is constituted by the articles in the International Waterways Treaty concerning the Milk and St. Mary rivers.

At the end of next season's work, practically three seasons will have been covered with good and frequent stream measurements, and with the other information that has been gained sufficient will be known of the peculiar conditions existing along the river.

At the end of this time it would appear that the only places where accurate measurements are required are at the points where the two branches of Milk river enter Canada, and at the eastern crossing where it leaves Canada. It is thought that these measurements could be gained most accurately and most economically by establishing permanent weirs at the points mentioned above. Looking forward to the time when the United States government will turn extra water into the channel of the Milk river it would be wise to make these weirs all permanent and of concrete. Apart from this phase of the question, and if the expense is to be incurred solely by this government, it is thought that wood structures would be suitable and advisable. My estimate of cost of such a structure, in my report for 1909, at the eastern crossing was \$3,300, and the cost of the same style of structures on the south branch and on the north branch, near the boundary, would respectively be about \$1,500 and \$500, making a total cost of \$5,600.

After these had been established the curves for them could be developed at a probable cost of one party's work for one season, viz., \$2,600, and after this the only expense in gaining records of flow would be the cost of the gauge height observers, which has to be paid in any case.

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Recapitulating, at the end of the season 1912-13, for a total charge of \$8,200, the measurements at these points could be carried on for, say, five years at least (before the weirs would require repairs) at no expense whatever save the cost of gauge height observers.

Under existing conditions it practically requires two parties to cover this river at an expense of about \$5,200 per year, so it can readily be seen how great the saving would be in dollars and cents if the weirs were established.

As was pointed out in my report for 1909, the character of the river bottom is of such a shifting nature that the curves developed on natural sections from one season's work are useless for the next season's work. And it was also pointed out that the proposed weir would give a better water measurement because it would bring up the water flowing in the sands of the river bottom, which water cannot be measured with a current meter.

Your obedient servant,

F. H. PETERS, *C.E.*



[Photo A. Kuechiel, 1969.]

PLATE 1.—Rocky Mountain Forest Reserve—Lodgepole pine along Oldman river.



PLATE 2. — Rocky Mountain Forest Reserve Burned-over mountain-side along Northwest Branch of Oldman river. [Photo A. Kuechel, 1909.]

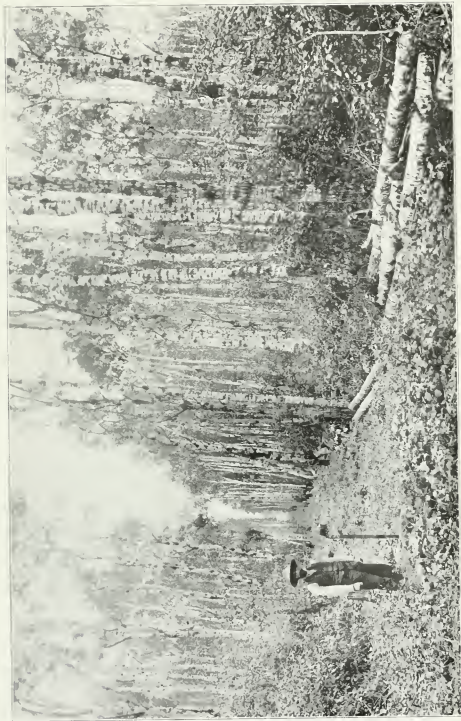


PLATE 3.—Riding Mountain Forest Reserve Fire-line on East Boundary of Reserve, showing Iron Stake marking Boundary. [Photo A. Knechtel, 1910.]



PLATE 4.—Moose Mountain Forest Reserve, Sask. [Photo A. Knechtel, 1909.
Shore of Fish Lake.

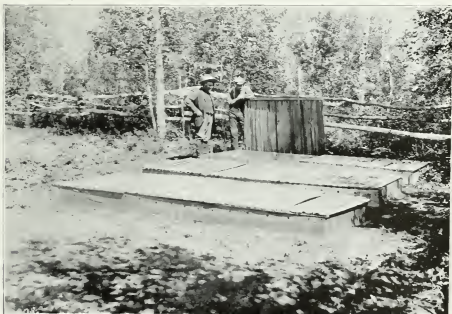


PLATE 5.—Moose Mountain Forest Reserve. Seed Beds in Nursery, July, 1910. [Photo A. Knechtel.

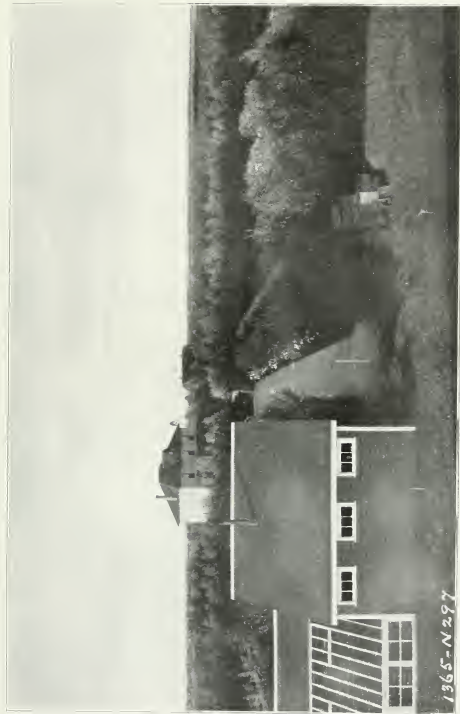


PLATE 6.—Forest Nursery Station, Indian Head, Sask., August, 1910.

[Photo N. M. Ross.

1365-N297



[Photo J. R. Dickson, 1910.
 PLATE 7.—Spruce and larch (tamarack), of pole size, between The Pas, N.W.T., and Lake
 Winnipeg. (Spruce flat type).



[Photo J. R. Dickson, 1910.
 PLATE 8.—Mixed Muskeg (Tamarack and Black Spruce), Mitishto river, N.W.T.



[Photo A. Knechtel, 1910.

PLATE 9. Douglas Fir and Western Cedar in British Columbia.



PLATE 10.—Large Douglas Fir Log (small end) near Raskin, B C. [Photo H. C. Wallin, 1910.]

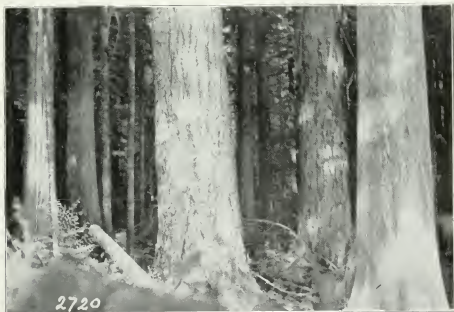


PLATE 11.—Timber in Coast District, British Columbia. [Photo H. C. Wallin, 1910.]



PLATE 12.—Douglas Fir and Cedar Timber in Coast District, British Columbia. [Photo H. C. Wallin, 1910.]



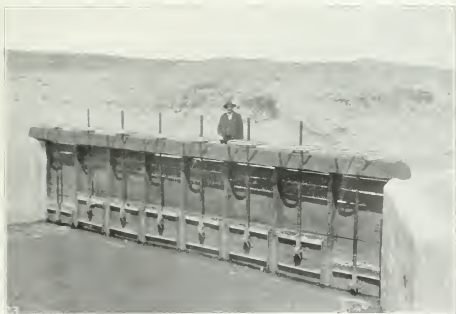
PLATE 13.—Packing on the Trail, Coast District, B.C. [Photo H. C. Wallin, 1910.]



[Photo P. Z. Caverhill, 191.]
PLATE 14. —Douglas Fir in the Bow River Valley, Alta.



[Photo G. Cromie, 1910.
 PLATE 15.—New Road to Squatter's Ranch, Adams Lake, B.C.



[Photo L. J. Gleason, 1910.
 PLATE 16.—Headgate on Alberta Railway and Irrigation Company's Scheme, Milk River District,
 Southern Alberta.

[Photo H. C. Ritchie, 1910.

PLATE 17.—Landlack Falls, on Crownest river, Southern Alberta.



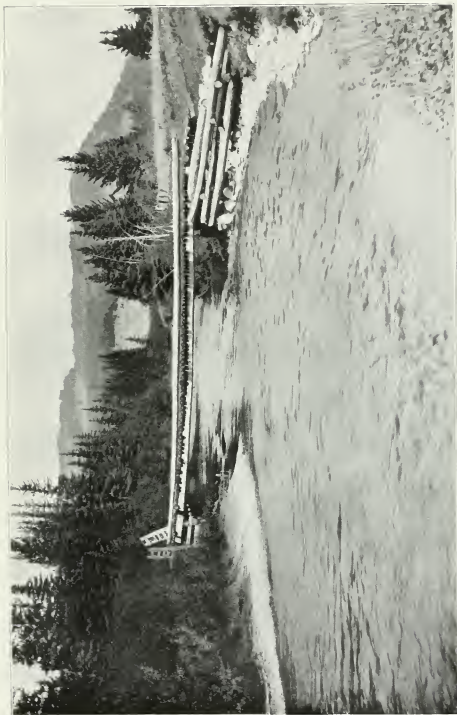


PLATE 18. Bridge Used as Regular Gauging station on Crownest River, at Coleman, Alta.

[Photo H. C. Ritchie, 1910.]



PLATE 19. Headgates on Southern Alberta Irrigation Co's ditch. Sec. 31, T₁p. 21, Range 25 west of 4th meridian. [Photo J. C. Keith, 1910.]

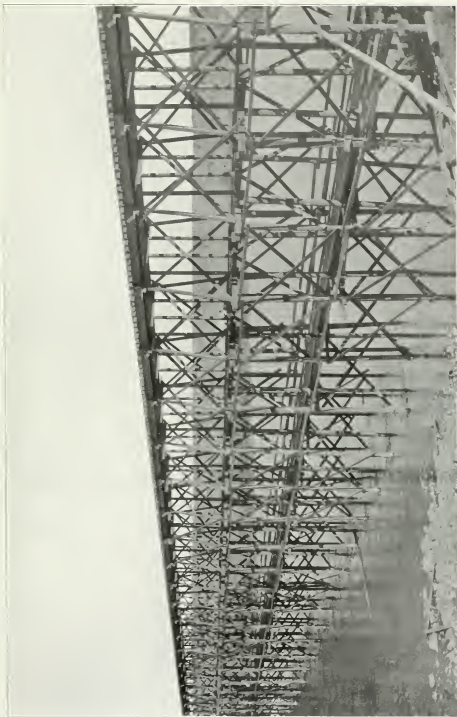


PLATE 20.—C. P. R. trestle across Bow River, Alta., to be Used in Construction of Irrigation Dam.
Photo H. R. Carscallen, 1910.



